IECEE-CB

体系文件译文集

中国质量认证中心 译

机械工业出版社
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IECEE-CB 体系文件译文集

中国质量认证中心　译

机 械 工 业 出 版 社

本译文集收入了作为国际电工委员会电工设备及零部件合格评定体系(IECEE-CB体系)运作基础的程序及技术文件。译文集共由3个部分组成。第一部分为IECEE-CB体系程序文件及操作文件，主要包括对IECEE的基本规则、组织结构及程序规则的概述以及IECEE-CB体系内与我国NCB及CBTL日常运作相关的基础性文件。第二部分为IECEE体系实验室委员会操作程序，涵盖了对测试实验室运作的重要要求及对其日常操作的规范。第三部分为IECEE CTL决议，包括自2008年来CTL对电线电缆、家用电器的自动控制器、家用及类似用途设备、安装附件及连接器材、激光设备、照明设备、信息技术及办公设备、安全变压器及类似设备、电子娱乐设备等多类产品的IEC标准及测试中容易产生理解分歧的问题的统一解释和规定。

本译文集不仅可以帮助我国机电测试实验室深入理解IECEE-CB体系的规则和要求，作为实验室日常工作的重要依据，也可作为政府相关部门、行业组织和技术机构制定相关政策及提供有效服务的参考。此外，译文集还可以帮助我国机电生产企业，深入了解相关机电产品标准要求、测试方法及CB证书及报告的具体使用要求，为企业产品的出口认证提供了程序性及操作性的指导。

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序

为推动国际电工委员会（IEC）标准的全球化，消除国际贸易中存在的技术壁垒，IEC于20世纪80年代相继推出了包括国际电工委员会电工设备及零部件合格评定体系（IECEE）在内的三大国际认证体系。由于IECEE体系在贸易便利化方面发挥的巨大作用，迄今为止已有54个成员加入。我国于1984年加入该组织，20多年来，伴随着IECEE体系的迅速发展，我国也在其中发挥着越来越重要的作用。中国国家成员机构--国家认监委一直注重参与的机制化建设和有效性评估，管理与服务并重，相继起草了《国际认证互认体系加入与管理办法》，建立了IEC三大认证体系国内运作机制年会制度，并在该制度下成立了多个工作组，从战略、技术、市场等多个角度为开展IECEE体系相关工作提供支持和指导。国家认监委谢军副主任于2003当选为IECEE副主席并连任至今。来自国家成员机构、国家认证机构及CB实验室的多名专家也参加到IECEE各个政策管理工作组和专业技术工作组中，全方位、多层次地积极参与体系各个层面的活动，在IECEE的政策制定和技术发展方面发挥着积极作用。

IECEE电工设备及零部件测试证书互认CB体系简称为IECEE-CB体系，是一个电工产品测试结果的相互认可协议，旨在为寻求全球第三方认证的制造商提供快捷、经济而优质的认证服务。IECEE-CB体系在中国成功运作20年来，大大促进了中国认证认可工作的国际化发展，便利了中国机电产品的出口。

自20世纪90年代以来，随着我国机电产品出口的持续增长，为突破产品出口国家和地区的技术性贸易壁垒，国内机电产品制造商对快捷、经济、优质的第三方认证服务的需求也在不断增长。IECEE CB体系以“一个标准，一次测试，一份报告，全球通行”为目标，通过50多个成员国的国家认证机构（NCB）之间签署的多边互认协议，使得企业可以利用当地NCB颁发的CB测试证书获得CB体系内其他成员国的国家认证。这种互认模式获得了国内制造商的青睐。近10年来，我国获得CB证书的工厂数量在IECEE体系内一直高居榜首，每年都超过全球工厂获证量的35%，并且还在不断增长。作为中国的国家认证机构，中国质量认证中心（CQC）的CB认证业务不断稳步发展，参加CB体系的范围目前已达12个产品类别，200多个标准，每年颁发证书3000多张，在全球60多个NCB中居于第六位。

随着技术的不断更新和发展，IECEE的产品认证范围也在不断扩大，其运作模式也在不断完善，为全球制造商提供了优质、快捷、全球通行的一站式认证测试服务。面对越来越多的中国制造商实现跨国经营战略目标的需求，中国的认证测试工作也需要在了解国际规则的基础上进一步发展，这就要求中国的认证机构、测试实验室以及制造商不仅要在充分理解IECEE的新规则、运作方法和技术文件的基础上，视中国CB相关工作的开展符合IECEE-CB体系的要求，满足中国机电产品出口认证的需求；还要通过深入研究，充分参与并影响IECEE-CB体系的决策和未来发展，使其能够更好地为中国及全球机电产品制造商服务。

此次对 IECEE-CB 体系基础程序文件和重要技术文件进行翻译，正是为中国认证和测试机构深入研究 IECEE-CB 体系所做的一项基础性工作。我相信也希望，这本译文集对 IECEE-CB 体系在中国的规范运作将起到切实的指导作用，对政府及行业相关部门的政策制定，机电产品制造商了解出口认证及测试也能提供有价值的参考信息，从而为进一步推动 CB 体系在我国的发展发挥积极的作用。

国家认监委总工程师

刘卫军

2010 年 11 月

前 言

IECEE 的各种文件是 IECEE-CB 体系正常运作的基础，也是各国国家认证机构（NCB）和 CB 实验室日常工作的重要依据。同时，IECEE-CB 体系作为一个运作非常成功的电工产品安全测试报告互认的国际体系，也为我国国内相关认证及测试业务的开展提供了重要参考。为了满足我国从事认证及测试人员深入研究 IECEE-CB 体系规则的要求，同时为了帮助我国机电制造商深入了解产品标准和认证、测试要求，为政府相关部门、行业组织的政策制定提供参考，我们选择了 IECEE-CB 体系中的基础性及重要性文件进行了翻译。

本译文集依照 IECEE 对文件的分类分为操作及规则文件、IECEE 实验室委员会（CTL）操作程序及 IECEE CTL 决议 3 个部分。第一部分文件根据其适用范围分为程序文件、实验室申请及评审相关文件和 CB 测试及 CB 报告相关文件。其中程序文件提供了 IECEE-CB 体系组织结构、运作方式和基本规则等信息。实验室申请及评审相关文件可为第三方测试实验室和制造商实验室申请加入 IECEE-CB 体系及了解相关要求提供信息。CB 测试及 CB 报告相关文件则涉及了 IECEE-CB 体系对测试实验室进行 CB 测试和出具 CB 报告的基本要求。第二部分文件包括了由 IECEE 实验室委员会制定的对实验室日常测试活动的规范，涉及了对测试、校准及 CB 报告出具的具体技术要求。第三部分则收入了 IECEE 实验室委员自 2008 年以来针对多类电气产品形成的决议。这些决议是 IECEE 实验室委员会根据测试实验室、制造商等在日常测试过程中产生的对 IEC 标准和测试方法的疑问和分歧，经过专家讨论而形成的对这些问题的统一解释和规定。

由于译文集的翻译不仅要求译者了解 IECEE-CB 体系的基本运作，还需要译者熟悉机电产品的标准和测试，因此我们特地组织了我国 NCB 及 CB 实验室了解 IECEE-CB 体系运作、熟悉机电产品标准及测试的专家对文件进行翻译和校核。参加译文集的编写单位有：广州威凯检测技术研究所、上海市质量监督检验技术研究院电子电器质量检验所、上海市质量监督检验技术研究院、国家电光源质量监督检验中心、上海出入境检验检疫局电器检测室、国家电线电缆质量监督检验中心、国家广播电视产品检测中心、中国家用电器研究所、广州电气安全检验所、上海电气器具检验测试所、信息产业部电子五所、电子工业安全与电磁兼容检测中心、上海电器设备检测所低压电器检测站、福建省中心检验所、广东检验检疫技术中心电气安全实验室、浙江出入境检验检疫局电气安全实验室、浙江方圆检测集团股份有限公司、香港标准与检定中心。

同时，在确定重点文件、组织翻译和最终校核的过程中，我们还得到了 IECEE-CB 体系中国国家成员机构国家认监委的大力支持和帮助，在此一并表示最衷心的感谢。

由于 IECEE 的规则及程序文件会随着 IECEE-CB 体系的进一步发展而进行修订和完善，我们今后也会根据我国 CB 认证的实际需求适时地对此译文集进行增补和修订。

中国质量认证中心

2010 年 7 月 16 日

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第一章　IECEE-CB 体系程序文件

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IECEE 01

Douzième édition
Twelfth edition
2009-12

Système CEI d'Essais de Conformité et de Certification des Equipements et Composants Electrotechniques (IECEE) –

Règles fondamentales

IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE) –

1. Basic Rules

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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IECEE
01

国际电工委员会

第十二版
2009-12

IEC 电工设备及零部件合格评定体系（IECEE）
1. 基本规则

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (IECEE)

BASIC RULES OF THE IECEE

FOREWORD

This publication governs the corporate and administrative structure of the IEC system of conformity assessment schemes for electrotechnical equipment and components.

This publication has been prepared by the Certification Management Committee and approved by the Conformity Assessment Board.

It cancels and replaces Publication IECEE 01, Eleventh edition, 2008.

Each of the annexes to this publication is normative.

The text of the amendments of this edition (IECEE 01 Twelfth edition 2009) is based on the following Document.

Document	Report on voting
IECEE-CMC/1022/RM	CMC Decision

国际电工委员会

IEC 电工设备及零部件合格评定体系（IECEE）
基本规则

前　　言

本出版物指导 IEC 电工设备及零部件合格评定体系的组织结构及管理结构。
本出版物由认证管理委员会制定，并经合格评定局批准。
它取消并代替 IECEE　01，2008 年第十一版。
本出版物的附录均是规范性的。
对本版（IECEE　01 2009 年第十二版）的修订以下列文件为依据：

文件	投票结果报告
IECEE-CMC/1022/RM	CMC 决议

IEC SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (IECEE)

BASIC RULES OF THE IECEE

1 Title

The title of the System is "IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components*", hereinafter referred to as "the IECEE".

2 Object

Taking into account the object of the International Electrotechnical Commission (IEC) as given in Article 2 of the IEC Statutes, the particular object of the IECEE, operated under the authority of the IEC in conformity with the Statutes, is to facilitate international trade in Electrotechnical Equipment and Components.

3 Scope

3.1 The IECEE is applicable to such standards, categories and services as proposed by its Certification Management Committee (CMC) and approved by the IEC Conformity Assessment Board (CAB). A list of the "Approved Categories" is included in Annex C.

Note: Extensions related to standards, collateral and horizontal standards falling under these approved categories (Annex C) are managed by the CMC in accordance with IECEE 02.

3.2 Extensions to the Scope of the IECEE

Any proposed scope extension by the IECEE System into a new area or field of activity shall not:

a) result in an overlap in the scopes of the other IEC CA Systems
b) negatively impact the finance of the IECEE System
c) involve discernible risks of liability for the IEC
d) conflict with the IEC's policies, including the CA Policy
e) inflict damage upon the IEC's reputation or image.

3.3 The IECEE shall operate and maintain

– a ISO/IEC System 1b* scheme for the mutual recognition of Test Certificates and related documents indicating that one or more specimens of electrotechnical equipment, falling within the approved Scope of the Scheme, were tested and found to be in conformity with specific standards. This scheme is called "IECEE CB Scheme for Mutual Recognition of Test Certificates for Electrotechnical Equipment and Components" as contained in the Rules of Procedure Publication IECEE 02;

– a ISO/IEC System 5* scheme for the mutual recognition of Conformity Assessment Certificates and related documents for electrotechnical equipment, falling within the approved Scope of the Scheme. This scheme is called IECEE CB-FCS Scheme for Mutual Recognition of Conformity Assessment Certificates for Electrotechnical Equipment and Components" as contained in the Rules of Procedure Publication IECEE 03;

IEC 电工设备及零部件合格评定体系（IECEE）基本规则

1 名称

本体系称为：“IEC 电工设备及零部件合格评定体系”，以下简称“IECEE”。

2 宗旨

考虑到国际电工委员会（IEC）章程第 2 条所规定的该委员会的宗旨，IECEE 在 IEC 章程的授权下开展工作，具体宗旨是促进电工设备及零部件的国际贸易。

3 范围

3.1 IECEE 适用于由其认证管理委员会（CMC）提议的，并由 IEC 合格评定局（CAB）批准的标准、目录和服务。附录 C 为批准目录清单。

注：涉及这些批准目录（附录 C）内的标准，引用标准和基础标准范围的扩大由 CMC 根据 IECEE 02 进行管理。

3.2 IECEE 范围的扩大

任何由 IECEE 体系提议的在新领域的扩项都不应：

a）导致与其他 IEC 合格评定体系范围的重合；

b）对 IECEE 组织的财务造成负面影响；

c）给 IEC 带来可辨识的责任风险；

d）与 IEC 的政策，包括与合格评定政策冲突；

e）造成 IEC 名誉和形象的损害。

3.3 IECEE 应运作并保持

— 一个基于 ISO/IEC 1b 模式的测试证书及相关文件互认体系，这些证书和文件表明一个或多个在本体系批准范围内的电工设备样品经过测试并符合特定标准要求。本体系根据程序规则出版物 IECEE 02 被称为“IECEE 电工设备及零部件测试证书互认 CB 体系”。

— 一个基于 ISO/IEC 第 5 种模式的体系，该体系针对批准范围内的电工设备的合格评定证书和相关文件进行互认。本体系根据程序规则出版物 IECEE 03 被称为“电工设备及零部件合格评定证书互认 IECEE CB-FCS 体系”。

- individual conformity assessment programs that are complementary to the other IECEE services.

* According to ISO/IEC Guide 67: 2004

3.4 In the IECEE, the term “specific standard” denotes a standard that is in accordance with Clause 13.

4 Governing documents

The documents which govern the organization of the IECEE are:

a) the Statutes of the IEC;
b) the Rules of Procedure of the IEC;
c) the ISO/IEC Directives, unless otherwise specified;
d) the Basic Rules which define the principles of the IECEE and which are approved by the CAB;
e) the Rules of Procedure of the IECEE which define the working procedures of the Schemes. The Rules of Procedure are decided upon and amended by the CMC of the IECEE, in accordance with the voting procedure described in clause 13. The Rules of Procedure of the Schemes and amendments to them shall be notified to the CAB.

In case of a conflict, contradiction or inconsistency between the provisions of one of the above mentioned documents and provisions of another of the above mentioned documents, the provisions of the document listed in a higher position shall take precedence over the provisions of the document listed in a lower position.

5 Membership

5.1 Membership of the IECEE is open to any country in which there is a Full or Associate Member National Committee of the IEC, as defined in Article 4 of the Statutes of the IEC.

Membership of the IECEE is also open to non-IEC member countries, subject to the concurrence of the IEC Executive Committee (ExCo) regarding general IEC policy and satisfaction of the specific requirements for membership, as set out in Annex E.

The Member Body of the IECEE shall be fully representative of the national electrotechnology community and should include a wide representation from industry, electrical regulatory authorities and standards bodies as well as conformity assessment interests. It may be either

- the National Committee of IEC, or
- a body notified to the IEC by the National Committee of the IEC.

5.2 The IECEE Member Bodies nominated by Full or Associate Member National Committees or from non-IEC member countries are entitled to participate fully in the committees and activity of the IECEE, except that representatives of IEC Associate Members and of non-IEC member countries are not eligible for election to any officer position.

Suspended IEC National Committees, or bodies notified by them for System membership, shall not be permitted to retain membership of the IECEE or be admitted to membership in the IECEE during the period of suspension. National Certification Bodies and Testing

— 作为其他 IECEE 服务补充的独立的合格评定方案。

* 根据 ISO/IEC 导则 67：2004

3.4　在 IECEE 中，“特定标准”指本文第 13 条所指的标准。

4　指导性文件

指导其组织工作的文件如下：

a）IEC 章程；

b）IEC 程序规则；

c）ISO/IEC 指令，另有规定除外；

d）经 CAB 批准的，规定 IECEE 各项原则的基本规则；

e）规定体系各项工作程序的 IECEE 程序规则。该程序规则是由 IECEE 认证管理委员会（CMC）按照第 13 条说明的投票程序决定和修订的。体系的程序规则及对它们的修订，应报告 CAB。

如果上述不同文件的条款出现冲突、矛盾或不一致，列于高位的文件中的条款优先于列于低位的文件中的条款。

5　成员资格

5.1　IECEE 的成员资格对任何已有 IEC 正式成员国家委员会或者准成员国家委员会（见 IEC 章程第 4 条的定义）的国家开放。

按照附录 E 的规定，如果符合 IEC 通用原则和对成员资格特定的要求，经 IEC 执行委员会（ExCo）同意，则成员资格也对非 IEC 成员国开放。

IECEE 的成员机构应能全权代表国家电工技术团体并应广泛代表工业界、电气法规当局、标准机构及合格评定方利益，它可能是：

- IEC 国家委员会；或是
- 由 IEC 国家委员会指定并报 IEC 的一个机构。

5.2　不论是由正式成员或者准成员国家委员会提名的 IECEE 成员机构，还是来自非 IEC 成员国的 IECEE 成员机构，都可以有权全面参加 IECEE 的各个委员会及 IECEE 的各项活动，但是来自 IEC 准成员国及非 IEC 成员国的代表不能参与任何官员职位的选举。

在 IEC 国家委员会的成员资格被暂停期间，IEC 国家委员会或者由其指定加入体系的机构不能保留 IECEE 成员资格或者获得成员资格。

Laboratories associated with such suspended IEC members or the nominated IECEE member body shall not be permitted to participate in the activities of the IECEE.

5.3 A Member Body of the IECEE can be either

a) a Member Body with Issuing and Recognizing National Certification Body or Bodies (NCB(s)),
b) a Member Body with Recognizing NCB(s) only, or
c) a Member Body with neither Issuing and Recognizing NCB(s) nor Recognizing NCB(s).

5.4 There shall be only one Member Body of the IECEE in a particular country.

5.5 Application for membership shall be submitted to the IECEE Secretariat by the National Committee of the IEC. The candidate Member Body shall undertake to abide by the Basic Rules of the IECEE.

The application shall also include a plan to recognize CB Test Certificates and assessment work carried out by any member of the System for the purpose of granting the “National Mark” or other means of national recognition to facilitate trade in the country. The plan shall be implemented within a timeframe as decided by the CMC.

Applications for IECEE membership from non-IEC member countries will be handled in accordance with the procedure set out in Annex E.

5.6 A Member Body wishing to withdraw from membership of the IECEE shall give at least one calendar year's notice. This Member Body shall pay its annual dues for the calendar year following the year during which the notice was given, unless notice of withdrawal is received up to and including 30 June, in which case the Member Body shall only be required to pay the current year’s dues.

5.7 Any proposal to suspend membership of the IECEE, or to cancel such suspension, shall require agreement by a majority of at least four-fifths of the total number of Member Bodies, except in the case of suspension for non-payment of dues, application fees, surcharges, etc. as decided by the CMC. If the suspension of the membership has not been cancelled during the year after which the decision was taken, the body concerned ceases to be a member of the IECEE.

6 Organization

6.1 The organization comprises the following

- Certification Management Committee (CMC),
- Centralized Secretariat
- Committee of Testing Laboratories (CTL),
- Factory Inspection Committee (FIC)
- Board of Appeal (BoA)
- Policy & Strategy Forum (PSF)
- Peer Assessment Committee (PAC)

6.2 The overall responsibility for the operation of the IECEE is vested in the CMC, which is a Committee of the IEC and operates under the authority of the CAB.

6.3 The CAB has delegated the management and overall operational responsibility related to the IECEE to the CMC. The CAB supervises the CMC and has the authority to disband the CMC and/or the IECEE (IEC Statutes Article 13). This authority shall not be exercised without prior consultation between the CAB and the CMC.

与资格被暂停的 IEC 成员或者其提名的 IECEE 成员机构相关联的国家认证机构和测试实验室也不能参加 IECEE 的活动。

5.3 IECEE 的成员机构可以是：

a）一个成员机构具有一个或多个颁发和认可国家认证机构（NCB（s））；

b）一个成员机构仅具有认可 NCB（s）；或

c）一个成员机构既没有颁发和认可 NCB（s），也没有认可 NCB。

5.4 每一个国家在 IECEE 内只能有一个成员机构。

5.5 申请参加 IECEE 应由 IEC 国家委员会向 IECEE 秘书处提出。该候选机构应保证遵守 IECEE 的基本规则。

申请应包括一个认可本体系任何成员的 CB 测试证书和评审工作，并颁发“国家标志”或者其他方式的国家认可，以便促进在该国的贸易计划。该计划应在 CMC 决定的时间表内完成。

由非 IEC 成员国提出的参加 IECEE 的申请应根据附录 E 的程序进行处理。

5.6 成员机构如希望退出 IECEE，应至迟在一个日历年度之前提出。该成员机构应缴纳提出通知当年的下一日历年度的年度会费。除非不晚于 6 月 30 日收到退出通知，在这种情况下，该成员机构仅需支付当年的费用。

5.7 任何暂停成员资格或者撤销暂停 IECEE 的提案，必须至少取得成员机构总数的 4/5 的同意，未按 CMC 决定支付年费、申请费、附加费等而导致的暂停除外。如果成员资格被暂停，在下一年内又尚未做出撤销暂停的决定，则该有关组织不再是 IECEE 成员。

6 组织

6.1 本组织包括；

- 认证管理委员会（CMC）；
- 中央秘书处；
- 测试实验室委员会（CTL）；
- 工厂检查委员会（FIC）；
- 申诉委员会（BoA）；
- 政策和战略论坛（PSF）；
- 同行评审委员会（PAC）。

6.2 认证管理委员会全面负责 IECEE 的运作。认证管理委员会是 IECEE 的一个委员会，并在 CAB 的授权下进行工作。

6.3 CAB 将有关 IECEE 管理及全面运作的责任授权给 CMC。CAB 监督 CMC 并有权解散 CMC 和/或 IECEE（IEC 章程第 13 条）。CAB 在和 CMC 进行协商前不得行使该权力。

7 Certification Management Committee

7.1 The composition of the CMC is as follows:

a) delegation of not more than three persons from each Member Body, where at least one person shall represent the interests of an NCB or NCBs and at least one person should represent (manufacturing) industry interests;
b) Chairman of the IECEE
c) Vice-Chairman of the IECEE
d) Treasurer of the IECEE
e) Executive Secretary of the IECEE
f) Chairman of the CTL
g) Secretary of the CTL
h) Chairman of the FIC
i) Secretary of the FIC
j) Chairman of the Board of Appeal
k) Representative of each relevant IEC Advisory Committee
l) General Secretary of the IEC

7.2 Each Member Body has one vote, but the positions b) through l) in 7.1 do not carry the right to vote.

7.3 The CMC shall meet at least once a year.

7.4 The CMC provides a report on its activities at least annually to the CAB and submits proposals for approval by the CAB with regard to

a) modifications to the Basic Rules of the IECEE,
b) the appointment of officers of the IECEE,
c) the budget and annual accounts of the IECEE
d) the policy of the IECEE,
e) proposals for extensions to the Scope of the IECEE and
f) proposals for the use of normative documents other than IEC standards

7.5 The CMC shall decide on and/or endorse

7.5.1 Membership

a) acceptance of Member Bodies of the IECEE,
b) acceptance, rejection and suspension of Recognizing NCBs, Issuing and Recognizing NCBs and of testing laboratories (CBTLs and ACTLs),
c) questions related to membership of the IECEE.

7.5.2 Finances

a) proposed budget of the IECEE, for approval by the CAB,
b) proposed annual accounts of the IECEE, for approval by the CAB,
c) dues to be paid by Member Bodies,
d) surcharges and the conditions under which they may be levied.

7.5.3 Appointments

a) Chairman and Members of the Board of Appeal,
b) Chairman and Secretary of the CTL,
c) Chairman and Secretary of the FIC,
d) Members of the Peer Assessment Committee (PAC),
e) Members of the Policy & Strategy Forum (PSF),

7 认证管理委员会

7.1 认证管理委员会的组成如下：

a）每个成员机构派出不超过三人的代表团，其中至少一人应代表 NCB（一个或多个）利益，一人应代表（制造商）工业界利益；

b）IECEE 主席；

c）IECEE 副主席；

d）IECEE 的司库；

e）IECEE 执行秘书；

f）CTL 主席；

g）CTL 秘书；

h）FIC 主席；

i）FIC 秘书；

j）申诉委员会主席；

k）每个相关 IEC 顾问委员会的代表；

l）IEC 秘书长。

7.2 每个成员机构有一票选举权，但 b）～l）的职位无权选举。

7.3 CMC 应每年至少举行一次会议。

7.4 CMC 至少每年就其活动向 CAB 汇报并提交下列相关提案由 CAB 批准：

a）IECEE 基本规则的修订；

b）IECEE 官员的任命；

c）IECEE 的年度账目和预算；

d）IECEE 的政策；

e）IECEE 范围扩大的提案；

f）使用 IEC 标准以外的规范性文件的提案。

7.5 CMC 应决定和/或同意以下各项：

7.5.1 成员资格

a）接受 IECEE 成员机构；

b）接受、拒绝和暂停认可 NCB，颁发和认可 NCB 以及测试实验室（CBTL 和 ACTL）；

c）涉及 IECEE 成员资格的问题。

7.5.2 财务

a）提交 CAB 批准的 IECEE 预算；

b）提交 CAB 批准的 IECEE 年度帐目；

c）成员机构应支付的费用；

d）附加费用及其征收条件。

7.5.3 任命

a）申诉委员会主席和成员；

b）CTL 主席和秘书；

c）FIC 主席和秘书；

d）同行评审委员会（PAC）成员；

e）政策和战略论坛（PSF）成员；

f) Convenor and Members of the various Working Groups (this may be delegated to the Executive Secretary and the appointed Convenor).

7.5.4 Rules and Procedures for the operation of the Schemes

a) Basic Rules (IECEE 01) for subsequent approval by the CAB,
b) Rules of Procedure (IECEE 02, IECEE 03),
c) Operational Documents (OD-CBs),
d) Questions regarding the Rules and Procedures,
e) Recommendations of PS&F, CTL, FIC, PAC and possible other committees,
f) Standards to be applied in each IECEE Category,
g) New IECEE Categories for subsequent approval by the CAB.

7.6 The CMC shall, moreover, have the following duties:

a) to manage the IECEE in accordance with the Basic Rules and the Rules of Procedure of the IECEE;
b) to promote the IECEE;
c) to carry out any other tasks relevant to the object of the IECEE, given to it by the CAB.

7.7 Decisions by the CMC may be appealed to the Board of Appeal of the IECEE. If the case is not resolved within the Board of Appeal of the IECEE, it can be then appealed to the CAB.

7.8 The CMC may establish working groups with clearly defined terms of reference, to advise it on matters related to the management of the IECEE or to enhance the efficiency of its operation.

7.9 The duties of the IECEE working groups shall be carried out under the responsibility of the Executive Secretary of the IECEE.

8 Officers and administration

8.1 The officers of the IECEE are

- Chairman,
- Vice-Chairman,
- Treasurer, and
- Executive Secretary.

8.2 The Chairman is appointed for a period of three years by the CAB, on the nomination of the CMC. He is eligible for re-appointment in the same office for one further period of three years. If at the conclusion of a second or subsequent term, there are no new candidates nominated for election to the position, the CMC may by specific resolution, outlining the circumstances, propose to the CAB that the incumbent Chairman be appointed to a further term of three years in that position.

The Chairman shall not act as a national delegate to the CMC.
The Chairman is empowered to establish an advisory group.

8.3 The Vice-Chairman is appointed for a period of three years by the CAB, on the nomination of the CMC. He is eligible for re-appointment in the same office for one further period of three years.
If at the conclusion of a second or subsequent term there are no new candidates nominated for election to the position, the CMC may by specific resolution, outlining the circumstances, propose to the CAB that the incumbent Vice-Chairman be appointed to a further term of three years in that position.
The Vice-Chairman may at the same time be a national delegate to the CMC, except when he takes the chair at a meeting.

f）各工作组召集人和成员（此项可委托执行秘书长和指定召集人）。

7.5.4　体系运作的规则和程序文件

a）基本规则（IECEE 01），CMC 决定后还需 CAB 批准；

b）程序规则（IECEE 02，IECEE 03）；

c）运行文件（OD-CBs）；

d）涉及规则和程序的问题；

e）PS&F、CTL、FIC、PAC 和其他委员会的建议；

f）每个 IECEE 产品类别适用的标准；

g）新的 IECEE 产品类别，CMC 决定后还需 CAB 批准。

7.6　此外，CMC 应有以下职责：

a）按照 IECEE 的基本规则和程序规则管理 IECEE；

b）促进 IECEE 发展；

c）执行由 CAB 交给的与 IECEE 宗旨有关的其他任务。

7.7　由 CMC 做出的决定，可以向 IECEE 申诉委员会提出申诉。如果 IECEE 申诉委员会不能解决，可以向 CAB 申诉。

7.8　CMC 可以设立一些职责权限明确的工作组，为 IECEE 的有关管理事项提供建议或帮助其提高运作效率。

7.9　IECEE 工作组应在 IECEE 执行秘书负责下履行其职责。

8　官员和管理

8.1　IECEE 的官员有：

——主席；

——副主席；

——司库；

——执行秘书；

8.2　主席经 CMC 提名，由 CAB 任命，任期三年。主席可在该职务上连任一届，任期三年。如果在第二届或随后届任期结束后，该职位仍没有其他提名的候选人竞选，则 CMC 可通过特殊决议，说明情况，并向 CAB 提议现任主席在该职位上继续连任三年。

主席不得作为参加 CMC 的国家代表。

主席有权建立一个顾问组。

8.3　副主席经 CMC 提名，由 CAB 任命，任期三年。副主席可在该职务上连任一届，任期三年。如果在第二届或随后届任期结束后，该职位仍没有其他提名的候选人竞选，则 CMC 可通过特殊决议，说明情况，并向 CAB 提议现任副主席在该职位上继续连任三年。

在主持会议以外的时间，副主席可以同时作为参加 CMC 的国家代表。

8.4 The Chairman or the Vice-Chairman shall represent the interests of the IECEE System .

8.5 The Treasurer is appointed for a period of three years by the CAB, on the nomination of the CMC. He is eligible for re-appointment in the same office for one further period of three years.

If at the conclusion of a second or subsequent term there are no new candidates nominated for election to the position, the CMC may by specific resolution, outlining the circumstances, propose to the CAB that the incumbent Treasurer be appointed to a further term of three years in that position.

The Treasurer may at the same time be a national delegate to the CMC.

8.6 The Executive Secretary is entrusted with the chief executive officer functions in relation to the IECEE Scheme.

8.7 The Executive Secretary is entrusted with the routine work of the IECEE and shall carry out the instructions of the CMC and of its Chairman.

8.8 The Executive Secretary is appointed for a period of five years by the CAB, on nomination by the CMC and is eligible for re-appointment without restriction. The Executive Secretary is an employee of the IEC and a decision to appoint the Secretary requires the prior consent of the IEC General Secretary. The IECEE Chairman shall consult with the CAB Chairman and the General Secretary before a proposal is made to the CMC for the nomination of an Executive Secretary.

8.9 The Chairman, the Vice-Chairman, the Treasurer and the Executive Secretary shall take office on the first day of January of the year following the meeting of the CAB at which they have been appointed unless otherwise determined by the CAB.

8.10 The officers of the IECEE may make decisions in between CMC meetings on the elements as specified in sub-clause 7. 5, as specifically delegated to them by the CMC. They shall, in addition, carry out any other task(s) assigned to them by the CMC. Any decision on matters delegated to the officers shall be reported to the CMC within one month and recorded in the Minutes of the next CMC meeting.

9 Committee of Testing Laboratories

9.1 The Committee of Testing Laboratories (CTL)

The aim of the CTL shall be to achieve reproducibility of test results and to promote a close collaboration between testing laboratories.

9.2 The Chairman and the Secretary of the CTL are appointed by the CMC on nomination by the CTL; however, if more than one nomination is received by the CTL, the CMC will proceed with a secret vote, to take place during the plenary meeting of the CMC.

9.3 The term of office of the Chairman and the Secretary of the CTL is three years. They are eligible for re-appointment in the same office for one further period of three years.

If at the conclusion of a second or subsequent term there are no new nominees for the election to the position of Chairman and/or Secretary, the CTL may by specific resolution, outlining the circumstances, propose to the CMC that the incumbent Chairman and/or Secretary be appointed to a further term of three years in that position.

8.4　主席或副主席应代表 IECEE 组织的利益。

8.5　司库经 CMC 提名，由 CAB 任命，任期三年。司库可在该职务上连任一届，任期三年。如果在第二届或随后届任期结束后，该职位仍没有其他提名的候选人竞选，则 CMC 可通过特殊决议，说明情况，并向 CAB 提议现任司库在该职位上继续连任三年。

司库可以同时作为参加 CMC 的国家代表。

8.6　执行秘书被授予 IECEE 体系首席执行官的职责。

8.7　执行秘书负责处理 IECEE 的日常工作，并应执行 CMC 及其主席的指令。

8.8　执行秘书经 CMC 提名，由 CAB 任命，任期五年，可不限次数连任。执行秘书是 IEC 的雇员，任命秘书的决定应事先取得 IEC 秘书长的同意。在向 CMC 提名执行秘书之前，IECEE 主席应事先与 CAB 主席和秘书长协商。

8.9　主席、副主席、司库以及执行秘书应在任命他们的 CAB 会议次年的一月一日就职，除非 CAB 另有决定。

8.10　IECEE 的官员在 CMC 闭会期间，可根据 CMC 的特别委派就条款 7.5 中列明的项目做出决定。另外，他们应执行由 CMC 分配给他们的其他任务。官员对委派其所做的任何事情的任何决定，应在一个月内向 CMC 报告，并在下次 CMC 会议的纪要中记载。

9　测试实验室委员会

9.1　测试实验室委员会（CTL）

CTL 的目标是实现测试结果的再现性，并促进各测试实验室之间的紧密合作。

9.2　CTL 的主席和秘书经 CTL 提名，由 CMC 任命。但是如果 CTL 收到的提名多于一个，CMC 应在 CMC 全会上进行不记名投票。

9.3　CTL 主席和秘书的任期为三年，他们可以在该职务上连任一届，任期三年。如果在第二届或随后届任期结束后，主席和/或秘书的职位仍没有其他提名的候选人竞选，则 CTL 可通过特殊决议，说明情况，并向 CMC 提议现任主席和/或秘书在该职位上继续连任三年。

9.4 Any Member Body of the IECEE has the right to attend the meetings of the CTL.

9.5 Participants in meetings of the CTL shall be appointed by the NCBs and shall be experts from testing laboratories and, if appropriate, other experts.

10 Factory Inspection Committee

10.1 The Factory Inspection Committee (FIC)

The aim of the FIC shall be to achieve a common understanding and uniform factory audit/inspection report and techniques for the purpose of their mutual acceptance.

10.2 The Chairman and the Secretary of the FIC are appointed by the CMC on nomination by the FIC; however, if more than one nomination is received by the FIC, the CMC will proceed with a secret vote, to take place during the plenary meeting of the CMC.

10.3 The term of office of the Chairman and the Secretary of the FIC is three years. They are eligible for re-appointment in the same office for one further period of three years. If at the conclusion of a second or subsequent term there are no new nominees for the election to the position of Chairman and/or Secretary, the FIC may by specific resolution, outlining the circumstances, propose to the CMC that the incumbent Chairman and/or Secretary be appointed to a further term of three years in that position.

10.4 Any Member Body of the IECEE has the right to attend the meetings of the FIC.

10.5 Participants in meetings of the FIC shall be appointed by the NCBs and shall be composed of experts in Factory Audit/Inspection.

11 Peer Assessment Committee

11.1 The Peer Assessment Committee (PAC)

11.2 The Chairmanship of the PAC is exercised by the Executive Secretary of the IECEE.

11.3 The Members of the PAC are appointed for a period of three years by the CMC, on nomination by the Member Bodies. They are immediately eligible once for re-appointment in the same office, for a further period of three years. Further re-appointments for three years are permitted, but only if there are no other nominations."

11.4 At every appointment by the CMC the maximum number of changes allowed shall not exceed three (3) in order to keep the necessary expertise, experience and continuity.

11.5 Upon invitation by the Chairman of the PAC, on a case-by-case basis depending on the topics that the PAC is requested to discuss, further invitations may be extended to allow the participation of Experts/Advisors as necessary..

11.6 Upon invitation by the Chairman of the PAC, immediately Past Members of the PAC are entitled to attend the PAC meetings one more year to impart skill and knowledge to new appointed Members.

9.4　IECEE 的任何成员机构都有权参加 CTL 会议。

9.5　CTL 会议的参加者应由 NCB 委派，并应是来自测试实验室的专家，在适当时候，可包括其他专家。

10　工厂检查委员会

10.1　工厂检查委员会（FIC）

FIC 的目标是达成一致的认识和统一的工厂审核/检查报告和技术，以便实现互认。

10.2　FIC 的主席和秘书经 FIC 提名，由 CMC 任命。但是如果 FIC 收到的提名多于一个，CMC 应在 CMC 全会上进行不记名投票。

10.3　FIC 主席和秘书的任期为三年，他们可以在该职务上连任一届，任期三年。如果在第二届或随后届任期结束后，主席和/或秘书的职位仍没有其他提名的候选人竞选，则 FIC 可通过特殊决议，说明情况，并向 CMC 提议现任主席和/或秘书在该职位上继续连任三年。

10.4　IECEE 的任何成员机构都有权参加 FIC 会议。

10.5　FIC 会议的参加者应由 NCB 委派，并应是工厂审核/检查方面的专家。

11　同行评审委员会

11.1　同行评审委员会（PAC）

11.2　PAC 的主席由 IECEE 执行秘书兼任。

11.3　PAC 的成员经成员机构提名，由 CMC 指定，任期三年。他们可以在该职位上连任一届，任期三年。在没有其他提名的情况下，允许继续连任三年。

11.4　为确保必要的专业知识、经验和连续性，CMC 的每次任命允许的最大人员变化不能超过三人。

11.5　根据 PAC 被要求讨论的议题，必要时，PAC 主席可根据具体情况邀请其他专家和顾问参加。

11.6　应 PAC 主席的邀请，以前参加过 PAC 的成员可在卸任后一年内继续参加 PAC 会议以便向新指定的成员传授技巧和知识。

12 Board of Appeal

12.1 The responsibilities of the Board of Appeal are

a) to recommend a solution to any dispute referred to it with regard to the application of these basic rules, and
b) to recommend actions to be taken against NCBs and CBTLs on complaints received regarding potential infringements to the Rules that could compromise the credibility of the IECEE Schemes.
c) to report to the CMC, for appropriate action, any observations relating to the technical content of the standards accepted for use in the IECEE and their applications, that has become evident when investigating a dispute.

12.2 The Board of Appeal shall consist of a Chairman and four members with deputies, each of whom shall be associated with an Issuing and Recognizing NCB. They shall be appointed by the CMC, upon nomination by the Member Bodies of the IECEE.

Their term of office shall be three years, provided that they continue to be associated with an Issuing and Recognizing NCB, and they shall be immediately eligible once for re-appointment for a further period of three years under the same conditions.

If at the conclusion of a second or subsequent term there are no new nominees for the election for these positions, the CMC may by specific resolution decide to appoint the Chairman of the Board of Appeal or the members and deputies for a further term of three years in that position.

12.3 The Executive Secretary of the IECEE shall act as the Secretary of the Board of Appeal and shall have no right to vote.

12.4 For considering a case submitted to the Board of Appeal, the Chairman and all four members or their deputies shall be present. A case may be dealt with by correspondence, with the agreement of the parties involved.

12.5 Neither the Chairman of the Board of Appeal, nor the four members or deputies shall serve in a case in which an NCB of their country is involved. When necessary in such an event, a person associated with an Issuing and Recognizing NCB in a country not involved in the case shall be appointed by the Chairman of the IECEE.

12.6 The parties interested shall have the right to be heard by the Board of Appeal.

12.7 Decisions of the Board of Appeal about its recommendations shall be taken by a simple majority of the four members. If the votes are equally divided, the Chairman shall decide upon the action to be taken.

12.8 If a recommendation from the Board of Appeal is not followed, either party may submit the case to the CMC for appropriate action.

12.9 The procedure for the Board of Appeal is given in ANNEX B.

13 Legal provisions

13.1 International level

13.1.1 The CMC does not engage in trade, is non-profit making and does not take part in any other economic pursuit on its own behalf. It has no marketing function or price-regulating function. It expends its means only on achieving the object of clause 2.

12 申诉委员会

12.1 申诉委员会的职责是：

a）对涉及本基本规则有关应用的纠纷，提出解决办法的建议；

b）对于收到的可能对 IECEE 信誉造成影响的潜在违规行为的抱怨，提出针对 NCB 和 CBTL 的处理意见。

c）调查争议时发现的任何明显涉及 IECEE 采用标准的技术内容及其应用的问题，都应向 CMC 报告，以便采取适当措施。

12.2 申诉委员会由主席和四名成员及其代理组成。他们都应是与颁发和认可 NCB 有关的人员，由 IECEE 的成员机构提名，CMC 任命。

他们的任期均为三年，并可连任一届，任期仍为三年，前提是他们继续保持与颁发和认可 NCB 的关系。

如果在第二届或随后届任期结束后，这些职位仍没有其他提名的候选人竞选，则 CMC 可通过特殊决议任命现任申诉委员会主席或成员及其代理在该职位上继续连任三年。

12.3 IECEE 执行秘书兼任申诉委员会的秘书，但无表决权。

12.4 申诉委员会在研究处理申诉事件时，主席和所有四名成员或其代理均应出席会议，经有关各方同意，也可采用通信的方式来处理。

12.5 不论是申诉委员会的主席还是四名成员或其代理，都不得参与处理涉及他们本国 NCB 的申诉事件。此时，如有必要，应由 IECEE 主席任命与此无关国家中的一个颁发和认可 NCB 的人员参与处理该事件。

12.6 有关各方有权要求申诉委员会听取其陈述。

12.7 申诉委员会关于其建议的决定，应根据四名成员表决的多数做出。如果表决结果票数相等，由主席决定将采取的行动。

12.8 如果申诉委员会的建议没有得到遵守，双方都可以将此事提交 CMC，以便采取适当行动。

12.9 申诉委员会的程序见附录 B。

13 法律条款

13.1 国际层面

13.1.1 CMC 不从事贸易活动，是非盈利性的，并不为自身利益参加任何其他经济活动。它没有销售职能或价格调节职能，它的资产仅用来实现第 2 条的宗旨。

13.1.2 The seat of the IECEE shall be the same as that of the IEC. The laws of the country in which the IEC has its seat shall apply in any or all cases not specifically provided for in these Basic Rules.

13.2 National level

For the national organizations, the laws of the relevant countries shall apply.

Nothing found in these Basic Rules or in the Rules of Procedure of the Schemes shall violate, or cause any acts which violate, the laws of a country in which the IECEE operates. It is the responsibility of the Member Body in each participating country in the establishment of the national rules implementing the IECEE to provide the necessary legal protection against the violation of any law.

13.3 Legal protection

The granting of certification of conformity shall not transfer to the CMC or to the IEC any of the legal responsibilities incumbent, under the national or international law, on the manufacturer or on the distributor of the product so certified.

13.4 Exclusion of liability

The national organizations acting on behalf of the CMC shall do so on their own responsibility and shall take all possible steps to exclude any liability from falling on the CMC or on the IEC.

13.5 Exoneration

In the case that the CMC or the IEC is held legally responsible, under national or international law, for any action taken by a national organization acting on behalf of the CMC, then the national organization involved shall undertake to exonerate fully the CMC and the IEC from such liabilities.

14 Standards

14.1 The IECEE is based on the use of specific IEC standards or IEC Technical Specifications for electrotechnical equipment and components accepted by the CMC for use in the IECEE. Specific CAB approval is required should the CMC propose to make use of normative documents, other than IEC standards.

14.2 If the CMC wishes to extend the IECEE scope into a field, for which there is no IEC standard, it shall request the relevant IEC technical committee or subcommittee to prepare as quickly as possible the required standard. If there is no committee dealing with the subject, the CMC shall, through the CAB, request the Standardization Management Board (SMB) of the IEC to initiate the preparation of the required standard.

In the absence of an applicable IEC standard, use can be made provisionally of other documents which shall be submitted by a Member Body to the CMC for consideration for acceptance for use in the IECEE. A proposal to use such documents shall be submitted to the CAB for approval.

The list of normative documents approved for use in the IECEE is included in Annex D.

15 Voting, Decisions and Implementation

15.1 Each Member Body has one vote in the committees in which it participates.

15.2 The presence of half the number of the Member Bodies shall constitute a quorum. Unless other provisions are made, decisions in meetings shall be taken by a simple majority of votes of the Member Bodies present and voting. Voting by proxy shall not be permitted.

13.1.2　IECEE 的所在地应与 IEC 相同。IEC 所在地国家的法律适用于本规则中没有做出特别规定的任何或所有情况。

13.2　国家层面

对于国家机构，有关国家的法律适用。

本基本规则或体系程序规则中的任何内容不得违反运作 IECEE 所在国家的法律，或导致任何违反法律的行为。每个参加国的成员机构在制定实施 IECEE 的国家规则时，有责任针对违法情况提供必要的法律保障。

13.3　法律保护

授予产品合格认证，不应将认证产品的制造商或分销商根据国家法或国际法应承担的任何法律责任转移给 CMC 或 IEC。

13.4　排除责任

各国家组织应对代表 CMC 开展的活动各自负责，并应采取一切可能的步骤避免 CMC 或 IEC 承担任何责任。

13.5　免除法律责任

如果按国家法或国际法，CMC 或 IEC 被认为对一个国家组织代表 CMC 所进行的任何活动负有法律责任，那么所涉及的国家组织应负责使 CMC 和 IEC 完全免除该项责任。

14　标准

14.1　IECEE 以 CMC 所接受的用于 IECEE 的特定的 IEC 电工产品及零部件标准或 IEC 技术规范为基础。如果 CMC 提议使用 IEC 标准之外的规范性文件，需要 CAB 的特别批准。

14.2　如 CMC 希望将尚无 IEC 标准的产品纳入 IECEE，应当要求有关的 IEC 技术委员会或分技术委员会尽快制定所需标准，如果没有相应的委员会来处理这一问题，CMC 应通过 CAB 要求 IEC 标准管理委员会（SMB）发起所需标准的准备工作。

如果缺乏适用的 IEC 标准，可以临时采用成员机构提交 CMC，考虑接受在 IECEE 内使用的其他文件。使用这类文件的建议需要提交 CAB 批准。

附录 D 为批准在 IECEE 使用的规范性文件列表。

15　投票、决定及实施

15.1　每一成员机构在它所参加的委员会中有一票表决权。

15.2　半数成员机构的出席构成法定人数。除非另有规定，会议的决议应由出席并投票的成员机构的多数做出。不允许代理投票。

Abstention is not considered as voting. The Chairman shall normally not vote, but if the votes are equally divided the Chairman shall decide on the action to be taken.

15.3 Decisions are normally taken during meetings by discussion and open vote. In some circumstances (e.g. in sub clause 9.2 and 10.2) CMC may be requested to proceed with a secret vote.

Between meetings, if the Chairman so decides, voting takes place by correspondence.

15.4 Unless other provisions are made, decisions on matters voted upon by correspondence shall be taken by a simple majority of votes of those Member Bodies voting. Abstention is not considered as voting. A vote by correspondence is terminated when all Member Bodies have voted or two months after the date of circulation of the voting document, whichever results in a shorter period, except that in the case of voting on the approval of the annual financial accounts and the annual budgets a shorter voting period will be determined by the Chairman to meet IEC requirements.

15.5 When determining the total number of Member Bodies, bodies whose membership has been suspended shall not be taken into consideration.

15.6 If the votes are equally divided, the Chairman shall decide on the action to be taken.

15.7 Decisions by the CMC are of mandatory implementation by the IECEE Members Bodies, National Certification Bodies and CB Testing Laboratories as appropriate, unless they are in conflict with National Laws, in which case objective evidence shall be provided in both the National Language and the corresponding English translation.

15.8 Proposed amendments to the Basic Rules shall be communicated in writing to the Member Bodies at least three months prior to the meeting of the CMC at which the proposed amendments shall be considered. Such amendments are approved if two-thirds of the Member Bodies present are in favour. If approved by the CMC, the proposed amendments shall be submitted to the CAB for approval. The amendments are applicable immediately following approval by the CAB.

15.9 The CAB may amend the Basic Rules on its own initiative, however before taking any such action the CAB shall consult with the Certification Management Committee.

The consultation with the CMC shall include the following

- Proposal from CAB to CMC Chairman and Executive Secretary, supported by a rationale for the proposed changes,
- Sufficient time for the CMC for stakeholder input,
- CMC discussion and decision at the next CMC meeting,
- The CMC discussion may result in an amended version of the proposal.

15.10 Decisions affecting the Rules of Procedure of the Schemes shall be taken by the CMC.

Proposed amendments to the Rules of Procedure shall be communicated in writing to the Member Bodies at least three months prior to the meeting of the CMC at which the proposed amendments shall be considered. Such amendments are approved if two-thirds of the Member Bodies present are in favour. If this condition is not fulfilled, the CMC may decide to submit the proposed amendments for approval by the Member Bodies by correspondence. The amendments are approved if a two-thirds majority of the votes cast

弃权不认为是投票。主席一般不应投票，但如果票数对等，由主席决定应采取的行动。

15.3　决议一般应在会议期间通过讨论和公开投票做出。在某些情况下（如条款 9.2，10.2)，CMC 可能被要求进行不记名投票。

在闭会期间，如果经主席决定，可用通信表决。

15.4　除非另有规定，对于采用通信表决的决议事项，应由参加投票的成员机构的多数做出。弃权不认为是投票。在通信表决时，当所有成员机构已经投票，或在表决文件发出之日起已满两个月，以两个期限中较短的为准，即认为投票已经结束。但在投票批准年度财务账目和年度预算时，应由 IECEE 主席决定一个较短的期限以满足 IEC 的要求。

15.5　在确定成员机构总数时，不应考虑那些已经被暂停成员资格的机构。

15.6　如果票数对等，则由主席决定应采取的行动。

15.7　CMC 决议由 IECEE 各成员机构、国家认证机构和 CB 测试实验室强制执行（适用时)，除非决议与国家法律有冲突。在此情况下应提交用本国语言和英文翻译表述的客观证据。

15.8　对基本规则提出的修订，应至迟在讨论该修订的 CMC 会议举行之前 3 个月，以书面形式分发给各成员机构。如果出席的成员机构的 2/3 赞成，修订即可被批准。CMC 批准后，修订内容应提交 CAB 批准。在 CAB 批准后，修订内容立即生效。

15.9　CAB 可自主地修订基本规则，但是在采取任何这种行动之前，CAB 须先与认证管理委员会商议。

与 CMC 的商议应包括：

- CAB 向主席和执行秘书提出修改内容的建议及其理由；
- 让 CMC 有足够的时间征求利益相关方的意见；
- CMC 讨论并在下届 CMC 会议上做出决定；
- CMC 的讨论可能导致提议内容的修改。

15.10　对体系的程序规则有影响的决议应由 CMC 做出。

对程序规则提出的修订，应至迟在讨论该修订的 CMC 会议举行之前 3 个月，以书面形式分发给各成员机构。如果出席的成员机构的 2/3 赞成，修订即可被批准。如果达不到这个条件，CMC 可以决定由成员机构以通信方式对提议的修订进行批准。如果涉及的成员机构的 2/3 赞成，修订即可被批准。

by the members are in favour. Abstentions are excluded when the votes are counted. Approved changes to the Rules of Procedure are to be notified to the CAB meeting next following the CMC approval.

16 Finance

16.1 The IECEE shall be self-financing.

16.2 The financial year of the IECEE shall be the calendar year.

16.3 The IECEE shall derive its income from annual dues paid by its Member Bodies and from any other sources as approved by the CMC.

16.4 Each year, upon receipt of the audited accounts, the Executive Secretary shall send to the Member Bodies the accounts of the IECEE for the preceding year, duly ratified by a professional auditor and signed by the Treasurer of the IECEE. The CMC shall consider and endorse the audited accounts at the following CMC meeting. The endorsed accounts shall be forwarded to the CAB Secretary in due time as per the CAB's rules.

16.5 The draft annual budget for the following year will be forwarded to Member Bodies in sufficient time to ensure approval by correspondence not later than the end of the third week of March. The approved annual budget of the IECEE shall be forwarded to the CAB Secretary in due time as per the CAB's rules.

16.6 The CMC shall establish the system of allocating the dues within the IECEE.

16.7 The dues shall be invoiced to the Member Bodies by the IECEE Secretariat in January and shall be paid by the end of March of each year.

16.8 Any Member Body whose dues for a given calendar year have not been paid by 31 March of that year may have its membership suspended by delegated decision of the CMC.

During such a suspension, the Member Body has no right to send a delegation to the CMC, or to receive documents or publications of the IECEE, or to exercise its vote or to participate in the Schemes. The CMC may, however, authorize the Member Body to send a delegation to the CMC during the period of suspension. National Certification Bodies and Testing Laboratories associated with such suspended IECEE Member Bodies shall not be permitted to participate in the activities of the IECEE.

16.9 Suspension of membership for a non-payment of dues shall be immediately cancelled when the Member Body has fully paid its past and current dues.

16.10 The CMC shall also decide on other source of incomes such as the surcharges and the conditions under which they may be levied.

17 Dissolution of the IECEE

Any proposal for dissolution of the IECEE has to be supported by the two thirds of the total number of Member Bodies of the System.
It shall be submitted to the CAB for approval including a recommendation on dispositions of remaining property and funds, after the full settlement of all liabilities.

弃权不认为是投票。CMC 批准的程序规则的改变应通知下一次的 CAB 会议。

16 财务

16.1 IECEE 的经费应该自给。

16.2 IECEE 的财政年度为日历年度。

16.3 IECEE 财政收入来自各成员机构按年度交纳的会费和由 CMC 批准的其他来源。

16.4 执行秘书在收到经审计的 IECEE 上年账目后应将其分发至成员机构。该账目应由专业的审计员审核并由 IECEE 的司库签字。CMC 应在下一次 CMC 会议上考虑并批准经审计的账目，然后按照 CAB 规则及时提交 CAB 秘书。

16.5 第二年年度预算草案应提前足够的时间分发给成员机构，以确保预算在 3 月的第三周结束之前能以通信的方式获得批准。被批准的 IECEE 年度预算应按照 CAB 规则及时提交 CAB's 秘书。

16.6 CMC 应建立在 IECEE 内分摊会费的制度。

16.7 IECEE 秘书处应在每年一月份向各成员机构发出会费的收费通知，成员机构应于当年三月底之前支付。

16.8 对于一个在给定的日历年度的 3 月 31 日以前未支付会费的成员机构，CMC 可授权决定暂停其成员资格。

在暂停期间，该成员机构无权向 CMC 派遣代表团，不能得到 IECEE 的文件或出版物，也不能行使表决权或参加各体系。但 CMC 可批准该成员机构在暂停期间向 CMC 派遣代表团。与资格暂停的成员机构相关联的国家认证机构和测试实验室不能参加 IECEE 的活动。

16.9 当成员机构缴清了过去积欠及当年的会费时，应立即恢复其因欠缴会费而暂停的成员资格。

16.10 CMC 也应对其他收入来源，比如附加费及其征收条件做出决定。

17 IECEE 的解散

任何关于解散 IECEE 的提议，都应得到体系内 2/3 成员机构的支持，并应在完全处理好所有责任后，连同对剩余资产及资金的处理建议一起提交 CAB 批准。

ANNEX A
(normative)
administrative details

A.1 Chairman, Vice-Chairman, Treasurer and General Secretary of the IEC
A.2 Executive Secretary
A.3 Certification Management Committee
A.4 CTL Committee of the Testing Laboratories
A.5 FIC Factory Inspection Committee

A.1 Chairman, Vice-Chairman, Treasurer and General Secretary of the IEC

A.1.1 The principal duties of the Chairman are to

a) convene meetings of the CMC,
b) preside over the meetings of the CMC,
c) decide upon the draft agendas for the meetings of the CMC, and
d) act on behalf of the CMC between its meetings.

A.1.2 The Chairman may attend all meetings within the IECEE, ex officio, without vote in this capacity.

A.1.3 In the event of the Chairman being unable to fulfill his duties, the Vice-Chairman takes over the duties.

A.1.4 The principal duties of the Treasurer are to

a) supervise the finances of the IECEE,
b) advise the Executive Secretary in financial matters related to the IECEE,
c) develop the annual budget on the basis of the information supplied by the Executive Secretary
d) present the annual budget to the CMC,
e) present the audited annual accounts of the IECEE to the CMC including relevant observations,

A.1.5 The General Secretary of the IEC or his representative may attend all meetings within the IECEE, ex officio, without vote.

附录 A
（规范性文件）
管理细则

本附件涉及以下人员和机构的管理细则：

A.1　主席、副主席、司库和 IEC 秘书长；

A.2　执行秘书；

A.3　认证管理委员会；

A.4　CTL 测试实验室委员会；

A.5　FIC 工厂检查委员会。

A.1　主席、副主席、司库和 IEC 秘书长

A.1.1　主席的主要职责是：

a）召集 CMC 的会议；

b）主持 CMC 的会议；

c）决定 CMC 会议的议事日程；

d）在 CMC 闭会期间，代表 CMC 行事。

A.1.2　依据其职责，主席可以出席 IECEE 内的所有会议，但以此身份出席时无表决权。

A.1.3　当主席不能履行其职责时，由副主席代理。

A.1.4　司库的主要职责是：

a）监督 IECEE 的财务；

b）指导执行秘书处理与 IECEE 有关的财务事项；

c）根据执行秘书提供的资料，编制年度预算；

d）向 CMC 提交年度预算；

e）向 CMC 提出经审计的 IECEE 年度账目以及他本人的意见。

A.1.5　依据其职责，IEC 秘书长或其代理可以出席 IECEE 内的所有会议，但无表决权。

A.2 Executive Secretary

A.2.1 The routine work of the Executive Secretary of the IECEE covers the following:

A.2.1.1 Managing the IECEE

a) Manage the IECEE secretary staff
b) provide the administrative support for the IECEE Members,
c) circulate to the Member Bodies the budgets and accounts of the IECEE,
d) handle the daily financial matters of the Secretariat of the IECEE,
e) collect regularly from the NCBs of the IECEE information about the standards to which IECEE Certificates are recognized or issued and about national differences
f) edit keep up to date and make available, in ways to be decided by the CMC, the records regarding
    - Member Bodies of the IECEE,
    - NCBs and associated CBTLs, including their Associated CB Testing Laboratories and their LTRs
    - Manufacturer's Testing Laboratories
g) edit and make available useful information about the IECEE (IECEE Data-base).

A.2.1.2 Managing the NCB / CBTL Applications and Performance

a) process applications from candidate Member Bodies, NCBs and/or Testing Laboratories according to the Basic Rules IECEE 01, Rules of Procedure IECEE 02 and the Peer Assessment Program.
b) process requests for extension of scope to further product categories or standards for NCBs and for CBTLs,
c) manage the Peer Assessment Program dealing with initial assessment and reassessment, follow-up and re-location assessments of NCBs and of Testing Laboratories, including the appointment of the assessment teams
d) monitor the NCBs and CBTLs continued compliance with the IECEE Rules and to take appropriate action(s); for example, by issuing General Non-Conformity Reports (GNCRs).

A.2　执行秘书

A.2.1　执行秘书的日常工作如下：

A.2.1.1　管理 IECEE

a）管理 IECEE 秘书处人员；

b）为 IECEE 成员提供行政支持；

c）向各成员机构分发 IECEE 的预算和账目；

d）处理 IECEE 秘书处日常的财务事项；

e）定期从各 NCB 收集关于认可或颁发 IECEE 证书的标准及国家差异的信息；

f）编辑更新并根据 CMC 决定的方式提供以下记录：

○ IECEE 成员机构；

○ NCB 及相关 CBTL，包括关联 CB 实验室和 LTR；

○ 制造商测试实验室；

g）编辑并提供关于 IECEE 的有用信息（IECEE 数据库）。

A.2.1.2　管理 NCB/CBTL 申请及运作情况

a）根据 IECEE 01 基本规则、IECEE 02 程序规则和同行评审计划处理来自候选成员机构、NCB 和/或测试实验室的申请；

b）处理 NCB 和 CBTL 扩大产品类别和标准范围的要求；

c）管理同行评审计划，组织对 NCB 及测试实验室的初审、复评审、后续评审和迁址评审，包括评审组人员的任命；

d）监督 NCB 和 CBTL 持续满足 IECEE 规则要求的情况并采取适当措施；如发布一般不符合项报告（GNCRs）。

A.3 Certification Management Committee

A.3.1 Notice of the meetings of the CMC shall be circulated by the Secretary of the IECEE at least four months prior to the meeting.

A.3.2 Unless otherwise specified, documents to be considered by the CMC shall be circulated according the table below.

A.3.3 The CMC may refuse to consider matters set before it if the relevant documents have not been circulated in accordance with A.3.2.

A.3.4 If no comments are provided within the two-months comment period, the Minutes shall be considered as being approved and confirmed by the CMC. If comments are provided within the two months comment period, they shall be resolved in due time so as the Minutes be approved and confirmed three months after their distribution.

circulated by the Executive Secretary of the IECEE	circulated by the Member Bodies to the IECEE Secretariat	Timeline	Timeline
draft agendas		three months prior to the CMC meeting	- 12 weeks
voting documents		three months prior to the CMC meeting	- 12 weeks
	proposals for standards to be applied in the IECEE	three months prior to the CMC meeting	- 12 weeks
	proposals to be considered at the CMC meeting	eight weeks prior to the CMC meeting	- 8 weeks
final agenda		six weeks prior to the CMC meeting	- 6 weeks
meeting documents		six weeks prior to the CMC meeting	- 6 weeks
	other documents, including comments on documents to be considered at the meeting	three weeks prior to the CMC meeting	- 3 weeks
		Meeting	Week 0
unconfirmed Minutes		one month after the CMC meeting	+ 4 weeks
	comments on the CMC Minutes	within two months of their circulation	+ 12 weeks
confirmed Minutes No comments		three months after the CMC meeting	+ 12 weeks
confirmed Minutes With comments		three months after the circulation of the unconfirmed Minutes	+ 16 weeks

A. 3　认证管理委员会

A. 3. 1　CMC 的会议通知，应由 IECEE 的秘书至迟在会期之前 4 个月分发。

A. 3. 2　除非另有规定，需由 CMC 讨论的文件应按下表分发。

A. 3. 3　如果有关文件未按 A3. 2 条的规定分发，CMC 可以拒绝考虑所提事项。

A. 3. 4　如果在两个月的评论期内未收到任何评论，则认为会议纪要已被 CMC 批准并确认。如果在两个月的评论期内收到了意见，应及时处理这些意见，确保会议纪要在分发后 3 个月内被批准并确认。

由 IECEE 执行秘书分发的文件	由成员机构发至 IECEE 秘书处的文件	时间表	时　间
会议日程草案		CMC 会议前 3 个月	－ 12 周
投票文件		CMC 会议前 3 个月	－ 12 周
	对 IECEE 采用标准的提案	CMC 会议前 3 个月	－ 12 周
	提交 CMC 会议考虑的提案	CMC 会议前八周	－ 8 周
最终会议日程		CMC 会议前六周	－ 6 周
会议文件		CMC 会议前六周	－ 6 周
	其他文件，包括对会议即将讨论文件的意见	CMC 会议前三周	－ 3 周
		会议	第 0 周
未确认的会议纪要		CMC 会议后一个月	＋ 4 周
	对 CMC 会议纪要的意见	纪要分发后两个月内	＋ 12 周
确认的会议纪要无意见		CMC 会议后 3 个月	＋ 12 周
确认的会议纪要有意见		未确认的纪要分发后 3 个月内	＋ 16 周

A.4 CTL Committee of the Testing Laboratories

A.4.1 The task of the CTL is to

a) handle questions of practice related to the test specifications and test methods detailed in the standards accepted for use in the IECEE,
b) detail the way in which the tests related to the IECEE have to be carried out so as to achieve the necessary reproducibility of test results,
c) harmonize the design and use of the test equipment if referred to in standards and to make recommendations to the relevant technical committee or subcommittee of the IEC for improvements of those standards,
d) develop and maintain lists of testing equipment
e) Establish test equipment requirements for standards used for the IECEE
f) manage and support Proficiency Testing Programmes as appropriate
g) organize workshops pertaining to the CTL activities and technical issues
h) provide testing laboratories with a forum in which practical testing problems can be demonstrated and discussed,
i) carry out other technical work as directed by the CMC.

A.4.2 The CTL may establish Working Groups with specific assignments or Expert Task Forces with clearly defined terms of reference, to advise on matters related to the specific product categories to enhance the effectiveness and efficiency of the CTL operation.

The duties of the Working Groups and Expert Task Forces shall be carried out under the responsibility of the CTL.

A.4.3 The CTL shall meet at least once a year, preferably in a place where a testing laboratory accepted in the IECEE is situated. It is essential that CBTLs be represented at these meetings.

A.4.4 The names of the participants appointed in accordance with clause 9.5 shall be communicated in writing to the host Member Body and to the Secretary of the CTL in due time before each meeting. The number of participants of a country simultaneously present at a meeting shall not exceed either the total number of NCBs of the country or three, whichever the bigger.

A.4.5 If the CTL decides that it is essential to revise a test specification of a standard, a proposal detailing the changes shall be submitted, via the Executive Secretary of the IECEE, to the relevant technical committee or subcommittee of the IEC or to the relevant IEC advisory committee, as appropriate.

A.4.6 As soon as possible after a meeting, the Secretary of the CTL shall prepare and send to the Executive Secretary of the IECEE a report for consideration by the CMC covering

a) the results of the meeting,
b) proposals being submitted to technical committees and subcommittees of the IEC and to the relevant advisory committee, and
c) proposals submitted to the CMC for discussion.

A.4.7 Minutes of meetings of the CTL shall be sent by its Secretary to all meeting participants, as well as to the Executive Secretary of the IECEE, within one month of the meeting. They shall embody all conclusions of the relevant meeting, together with a brief account of the discussions. As to confirmation of the Minutes, the provisions of A.1.5 apply.

A.4　CTL 测试实验室委员会

A.4.1　CTL 的任务是：

a）处理涉及测试规范和被 IECEE 认可使用的标准中的测试方法在实际操作中出现的问题；

b）规定 IECEE 相关测试须遵守的方法，以获得必要的测试结果再现性；

c）协调标准中提及的测试设备的设计及使用，并向 IEC 有关技术委员会或分技术委员会提出改进这些标准的建议；

d）制定并维护测试设备清单；

e）建立 IECEE 使用标准的测试设备要求；

f）根据情况管理并支持能力验证项目；

g）举办涉及 CTL 活动和技术问题的研讨会；

h）向测试实验室提供一个可以展示并讨论实际测试问题的论坛；

i）根据 CMC 的指示执行其他技术工作。

A.4.2　CTL 可建立有特定任务的工作组或职责明确的专家任务组，在涉及特定产品类别的问题上提供建议，以增强 CTL 运作的效率和有效性。

工作组和专家任务组应在 CTL 负责下执行其职责。

A.4.3　CTL 每年应至少举行一次会议，会议地点最好是 IECEE 接受的一个测试实验室所在地。CBTL 出席这些会议非常重要。

A.4.4　根据条款 9.5 指派参加会议的人员名单，应在会前按时以书面形式通知 CTL 会议的东道主国家的成员机构和 CTL 秘书。一个国家同时出席会议的人数不得超过该国家 NCB 的总数或者三人（两者取多数）。

A.4.5　如果 CTL 决定有必要修订某项标准的测试规范，应通过 IECEE 执行秘书，将详细说明修改内容的建议提交 IEC 有关技术委员会或分技术委员会或有关 IEC 顾问委员会。

A.4.6　在会议之后，CTL 的秘书应尽快准备会议报告，发送给 IECEE 执行秘书，供 CMC 讨论，其中包括：

a）会议结果；

b）提交 IEC 技术委员会、分技术委员会和有关顾问委员会的建议；

c）提请 CMC 讨论的建议。

A.4.7　CTL 会议的纪要应由其秘书在会议后的一个月内发送给所有参会者及 IECEE 执行秘书。纪要应包括所有相关的会议结论及讨论的简要记录。对纪要的确认，条款 A.1.5 适用。

The Executive Secretary of the IECEE shall circulate the confirmed Minutes to all Member Bodies, for information.

A.4.8 Unless otherwise specified, documents to be considered by the CTL shall be circulated at least a specific period before the relevant meeting as indicated below.

A.4.9 The CTL may refuse to consider matters set before it if the relevant documents have not been circulated in accordance with A.4.8.

A.4.10 If no comments are provided within the two-months comment period, the Minutes shall be considered as being approved and confirmed by the CTL. If comments are provided within the two months comment period, they shall be resolved in due time so as the Minutes be approved and confirmed three months after their distribution.

A.4.11 The Chairman and the Secretary of the CTL may attend all meetings within the IECEE, ex officio, without vote in that capacity.

circulated by the Secretary of the CTL	**circulated by the Member Bodies to the CTL Secretariat**	**Timeline**	**Timeline**
draft agendas		three months prior to the CTL meeting	- 12 weeks
	proposals to be considered at the CTL meeting	eight weeks prior to the CTL meeting	- 8 weeks
final agendas		six weeks prior to the CTL meeting	- 6 weeks
meeting documents		six weeks prior to the CTL meeting	- 6 weeks
	other documents, including comments on documents to be considered at the meeting	three weeks prior to the CTL meeting	- 3 weeks
		Meeting	Week 0
unconfirmed Minutes and List of Decisions		one month after the CTL meeting	+ 4 weeks
	comments on the CTL Minutes	within two months of their circulation	+ 12 weeks
confirmed Minutes and List of Decisions No comments		three months after the CTL meeting	+ 12 weeks
confirmed Minutes and List of Decisions With comments		three months after the circulation of the unconfirmed Minutes and List of Decisions	+ 16 weeks

IECEE 执行秘书应向所有成员机构分发确认的纪要，供其参考。

A.4.8　除非另有规定，需由 CTL 讨论的文件最迟应按下表规定的时间在有关会议之前分发。

A.4.9　如果有关文件未按 A.4.8 条的规定分发，CTL 可以拒绝考虑所提事项。

A.4.10　如果在两个月的评论期内未收到任何评论，则认为会议纪要已被 CTL 批准并确认。如果在两个月的评论期内收到了意见，应及时处理这些意见以确保会议纪要在分发后 3 个月内被批准并确认。

A.4.11　依据其职务，CTL 的主席和秘书可以出席 IECEE 内所有的会议，但以此身份出席时无表决权。

由 CTL 秘书分发的文件	由成员机构发至 CTL 秘书处的文件	时间表	时　间
会议日程草案		CTL 会议前 3 个月	— 12 周
	提交 CTL 会议考虑的提案	CTL 会议前八周	— 8 周
最终会议日程		CTL 会议前六周	— 6 周
会议文件		CTL 会议前六周	— 6 周
	其他文件，包括对会议即将讨论文件的意见	CTL 会议前三周	— 3 周
		会议	第 0 周
未确认的会议纪要和决议清单		CTL 会议后一个月	＋ 4 周
	对 CTL 会议纪要的意见	纪要分发后两个月内	＋ 12 周
确认的会议纪要和决议清单无意见		CTL 会议后 3 个月	＋ 12 周
确认的会议纪要和决议清单有意见		未确认的纪要和决议清单分发后 3 个月内	＋ 16 周

A.5 FIC Factory Inspection Committee

A.5.1 The task of the FIC is to

a) develop harmonized Factory Inspection Procedures and associated forms,
b) reach a common understanding and uniform audit techniques for the purpose of mutual acceptance of inspection reports,
c) carry out any other task as assigned by the CMC.

The FIC may establish Working Groups with clearly defined terms of reference, to advise on matters related to factory inspection and correlated activities to enhance the effectiveness and efficiency of the FIC operations.

The duties of the Working Groups shall be carried out under the responsibility of the FIC.

A.5.2 The FIC shall meet at least once a year.

A.5.3 The names of the participants appointed in accordance with 10.5 shall be communicated in writing to the hosting Member and to the Secretary of the FIC in due time before each meeting. The number of participants of a country simultaneously present at a meeting shall not exceed either the total number of NCBs of the country or three, whichever the bigger.

A.5.4 If the FIC decides that it is essential to revise specification related to Factory Audit/Inspection, a proposal detailing the changes shall be submitted to the Executive Secretary of the IECEE.

A.5.5 As soon as possible after a meeting, the Secretary of the FIC shall prepare and send to the Executive Secretary of the IECEE a report for consideration by the CMC covering

a) the results of the meeting,
b) proposals submitted to the CMC for approval

A.5.6 Minutes of meetings of the FIC shall be sent by its Secretary to all meeting participants, as well as to the Executive Secretary of the IECEE, within one month of the meeting. They shall embody all conclusions of the relevant meeting, together with a brief account of the discussions and items for approval.

A.5.7 Unless otherwise specified, documents to be considered by the FIC shall be circulated at least a specific period before the relevant meeting as indicated below.

A.5.8 The FIC may refuse to consider matters set before it if the relevant documents have not been circulated in accordance with A.5.7.

A.5.9 If no comments are provided within the two-months comment period, the Minutes shall be considered as being approved and confirmed by the FIC. If comments are provided within the two months comment period, they shall be resolved in due time so as the Minutes be approved and confirmed three months after their distribution.

A.5.10 The Chairman and the Secretary of the FIC may attend all meetings within the IECEE, ex officio, without vote in that capacity.

A.5　FIC 工厂检查委员会

A.5.1　FIC 的任务是：

a）制定协调的工厂检查程序和相关表格；

b）为检查报告的互认达成一致的认识和统一审查方法；

c）执行 CMC 委派的其他工作。

FIC 可建立职责明确的工作组，在涉及工厂检查及相关活动的问题上提供建议，以增强 FIC 运作的效率和有效性。

工作组应在 FIC 负责下执行其职责。

A.5.2　FIC 每年应至少举行一次会议。

A.5.3　根据条款 10.5 指派参加会议的人员名单，应在会前按时以书面形式通知承办 FIC 会议的成员机构和 FIC 秘书。一个国家同时出席会议的人数不得超过该国家 NCB 的总数或者三人（两者取多数）。

A.5.4　如果 FIC 决定有必要修订与工厂审核/审查有关的规范，应将详细说明修改内容的建议提交 IECEE 执行秘书。

A.5.5　在会议之后，FIC 秘书应尽快准备会议报告并发送给 IECEE 执行秘书，供 CMC 讨论，其中包括：

a）会议结果；

b）提请 CMC 讨论的建议。

A.5.6　FIC 的会议纪要应由其秘书在会后的一个月内发送给全体会议参加者及 IECEE 执行秘书，会议纪要应包括有关会议的全部结论以及讨论的概况和需要批准的项目。

A.5.7　除非另有规定，需由 FIC 讨论的文件最迟应按下表规定的时间在有关会议之前分发。

A.5.8　如果有关文件未按 A.5.7 条的规定分发，FIC 可以拒绝考虑所提事项。

A.5.9　如果在两个月的评论期内未收到任何评论，则认为会议纪要已被 FIC 批准并确认。如果在两个月的评论期内收到了意见，应及时处理这些意见以确保会议纪要在分发后 3 个月内被批准并确认。

A.5.10　依据其职务，FIC 的主席和秘书可以出席 IECEE 内所有的会议，但以此身份出席时无表决权。

circulated by the Secretary of the FIC	**circulated by the Member Bodies to the FIC Secretariat**	**Timeline**	**Timeline**
draft agendas		three months prior to the FIC meeting	- 12 weeks
	proposals to be considered at the FIC meeting	eight weeks prior to the FIC meeting	- 8 weeks
final agendas		six weeks prior to the FIC meeting	- 6 weeks
meeting documents		six weeks prior to the FIC meeting	- 6 weeks
	other documents, including comments on documents to be considered at the meeting	three weeks prior to the FIC meeting	- 3 weeks
		Meeting	Week 0
unconfirmed Minutes and List of Decisions		one month after the FIC meeting	+ 4 weeks
	comments on the FIC Minutes	within two months of their circulation	+ 12 weeks
confirmed Minutes and List of Decisions No comments		three months after the FIC meeting	+ 12 weeks
confirmed Minutes and List of Decisions With comments		three months after the circulation of the unconfirmed Minutes and List of Decisions	+ 16 weeks

由 FIC 秘书分发的文件	由成员机构发至 FIC 秘书处的文件	时间表	时　间
会议日程草案		FIC 会议前 3 个月	－ 12 周
	提交 FIC 会议考虑的提案	FIC 会议前八周	－ 8 周
最终会议日程		FIC 会议前六周	－ 6 周
会议文件		FIC 会议前六周	－ 6 周
	其他文件，包括对会议即将讨论文件的意见	FIC 会议前三周	－ 3 周
		会议	第 0 周
未确认的会议纪要和决议清单		FIC 会议后一个月	＋ 4 周
	对 FIC 会议纪要的意见	纪要分发后两个月内	＋ 12 周
确认的会议纪要和决议清单无意见		FIC 会议后 3 个月	＋ 12 周
确认的会议纪要和决议清单有意见		未确认的纪要和决议清单分发后 3 个月内	＋ 16 周

A.6 PAC Peer Assessment Committee

A.6.1 The task of the PAC is to

a) To monitor the Peer Assessment Program
b) To determine common understanding of ISO/IEC Guide 65 and ISO/IEC 17025
c) To clarify matters pertaining to Certification issues
d) To advise on the Assessment Reports of candidate NCBs and CBTLs and make recommendations to the CMC
e) To support and contribute as lecturers at the IECEE Lead and Technical Assessor training courses

The PAC may establish Working Groups with clearly defined terms of reference, to advise on matters related to the Peer Assessment programme and correlated activities to enhance the effectiveness and efficiency of the PAC operations.

The duties of the Working Groups shall be carried out under the responsibility of the PAC.

A.6.2 The PAC shall meet at least once a year.

A.6.3 If the PAC decides that it is essential to revise specification related to Peer Assessment activities, a proposal detailing the changes shall be submitted to the the CMC for approval.

A.6.4 As soon as possible after a meeting, the Executive Secretary of the IECEE shall prepare and send a report for consideration by the CMC covering

a) the results of the meeting,
b) proposals submitted to the CMC for approval

A.6.5 Minutes of meetings of the PAC shall be sent by the Executive Secretary of the IECEE to all meeting participants, within one month of the meeting. They shall embody all conclusions of the relevant meeting, together with a brief account of the discussions and items for approval.

A.6.6 Unless otherwise specified, documents to be considered by the PAC shall be circulated at least a specific period before the relevant meeting as indicated below.

A.6.7 The PAC may refuse to consider matters set before it if the relevant documents have not been circulated in accordance with A.6.6.

A.6.8 If no comments are provided within the one month comment period, the Minutes shall be considered as being approved and confirmed by the PAC. If comments are provided within the one month comment period, they shall be resolved in due time so as the Minutes be approved and confirmed two months after their distribution.

A.6　PAC 同行评审委员会

A.6.1　PAC 的任务是：

a）监督同行评审计划；

b）决定对 ISO/IEC 导则 65 和 ISO/IEC 17025 的共识；

c）澄清涉及认证的事宜；

d）对候选 NCB 和 CBTL 的评审报告提供建议并向 CMC 做出推荐；

e）为 IECEE 主任评审员和技术评审员课程提供支持以及授课。

PAC 可建立职责明确定义的工作组，在涉及同行评审计划及相关活动的问题上提供建议，以增强 PAC 运作的效率和有效性。

工作组应在 PAC 负责下履行其职责。

A.6.2　PAC 每年应至少举行一次会议。

A.6.3　如果 PAC 决定有必要修订涉及同行评审的规范，应将详细说明修改内容的建议提交 CMC 批准。

A.6.4　在会议之后，IECEE 执行秘书应尽快准备并提交供 CMC 讨论的报告，其中包括：

a）会议结果；

b）提请 CMC 讨论的建议。

A.6.5　PAC 的会议纪要应由 IECEE 执行秘书在会后的一个月内送交全体会议参加者。会议纪要应包括有关会议的全部结论以及讨论的概况和需要批准的项目。

A.6.6　除非另有规定，需由 PAC 讨论的文件最迟应按下表规定的时间在有关会议之前分发。

A.6.7　如果有关文件未按 A.6.6 条的规定分发，PAC 可以拒绝考虑所提事项。

A.6.8　如果在一个月的评论期内未收到任何评论，则认为会议纪要已被 PAC 批准并确认。如果在一个月的评论期内收到了意见，应及时处理这些意见以确保会议纪要在分发后两个月内被批准并确认。

circulated by the Executive Secretary of the IECEE	**circulated by the Member Bodies to the IECEE Secretariat**	**Timeline**	**Timeline**
draft agendas		one month prior to the PAC meeting	- 4 weeks
	proposals to be considered at the PAC meeting	two weeks prior to the PAC meeting	- 2 weeks
final agendas		two weeks prior to the PAC meeting	- 2 weeks
meeting documents		two weeks prior to the PAC meeting	- 2 weeks
		Meeting	Week 0
unconfirmed Minutes and List of Decisions		one month after the PAC meeting	+ 4 weeks
	comments on the PAC Minutes	within one month of their circulation	+ 8 weeks
confirmed Minutes and List of Decisions with or without comments		two months after the PAC meeting	+ 8 weeks

由 IECEE 执行秘书分发的文件	由成员机构发至 IECEE 秘书处的文件	时间表	时　间
会议日程草案		PAC 会议前一个月	－ 4 周
	提交 PAC 会议考虑的提案	PAC 会议前两周	－ 2 周
最终会议日程		PAC 会议前两周	－ 2 周
会议文件		PAC 会议前两周	－ 2 周
		会议	第 0 周
未确认的会议纪要和决议清单		PAC 会议后一个月	＋ 4 周
	对 PAC 会议纪要的意见	纪要分发后一个月内	＋ 8 周
确认的会议纪要和决议清单有意见或无意见		未确认的纪要和决议清单分发后两个月内	＋ 8 周

ANNEX B
(normative)

Procedure for the Board of Appeal

B.1 An applicant, a Recognizing or Issuing and Recognizing NCB or a Member Body of the IECEE shall have the right to submit an appeal to the Board of Appeal.

B.2 When an applicant wishes to appeal against a decision taken by an NCB about a matter with which this applicant is concerned, the applicant shall first appeal according to the appeal procedure of the NCB concerned, when that procedure is applicable.

If the applicant is not satisfied with the outcome of the appeal at national level and the applicant thinks that the decision is against the Rules of the IECEE, or if the national appeal procedure is not applicable, the applicant may submit an appeal in writing to the Secretary of the IECEE within one month after having been informed of the decision, setting out all reasons for the appeal.

B.3 When one of the parties mentioned in B.1 wishes to submit an appeal, it shall do so in writing to the Secretary of the IECEE, within one month after having concluded that it cannot come to an agreement, setting out its reasons in full.

B.4 In order to consider a case, the Board of Appeal should normally meet in conjunction with a meeting of the CMC. The Board of Appeal may however meet at any time, provided the complainant expresses willingness to pay the travelling and living expenses for the Chairman, the four members and the Secretary of the Board of Appeal for this meeting. These expenses shall be notified in advance to the complainant and shall have been paid to the account of the IECEE before the meeting can take place.

B.5 When the Board of Appeal meets to consider an appeal as per B.3, the following information shall be available:

a) the appeal;
b) the text of all correspondence between the parties and with the Secretary of the IECEE
c) that is essential for the appeal;
d) Extracts for the documented evidence that have been provided to the Secretary of the IECEE

NOTE: documented evidence comprises but is not limited to: infringement cases, extracts from the relevant reports on testing, photographs of the equipment or a specimen of it, drawings, circuit diagrams, instruction handbooks, etc., as necessary

Normally, these documents should be circulated at least four weeks before the meeting by the Secretary of the IECEE to the Chairman and the four members of the Board of Appeal, and their deputies when they will serve on the case. Copies of all documents shall also be sent to the parties.

B.6 When the parties have agreed that the matter may be dealt with by correspondence, clause B.5 also applies. The complainant shall have expressed its willingness to pay the costs, if any.
The Chairman of the Board of Appeal may then propose a solution for consideration by the members of the Board of Appeal. It is the duty of the Secretary of the IECEE to assist the members and the parties.

附录 B
（规范性文件）
申诉委员会程序

B.1　申请人、认可 NCB、颁发和认可 NCB 和 IECEE 的成员机构都有权向申诉委员会提出申诉。

B.2　当申请人希望对与其相关的某 NCB 的决定提出申诉时，如果该 NCB 的申诉程序适用，申请人应首先根据该 NCB 的程序进行申诉。

如果申请人对国家一级的申诉结果不满意，并认为该决定违反了 IECEE 的规则，或者当国家一级的申诉程序不适用时，申请人可以在收到国家级申诉决定通知的一个月内，向 IECEE 秘书提交书面申诉，并陈述申诉的全部理由。

B.3　当 B.1 中提到的任一方有意提出申诉时，应在确认无法达成协议后一个月内向 IECEE 秘书提交书面材料，并陈述全部理由。

B.4　为研究处理投诉事件，申诉委员会的会议一般应与 CMC 会议一起举行。但如果申诉人表示愿意支付申诉委员会主席、秘书及四名成员为举行会议所需的差旅费和生活费用，申诉委员会可以随时召开会议。这些费用的数额应事先通知申诉人，并应在会议举行前支付到 IECEE 的账户。

B.5　当申诉委员会按 B.3 项研究处理申诉事件时，应得到下述资料：

a）申诉书；

b）有关各方与 IECEE 秘书之间的所有通信文本；

c）申诉的关键材料；

d）已提交给 IECEE 秘书的文件证据的摘要。

注：文件证据包括但不限于：违规案例、有关测试报告摘录、设备照片或实际样品、图纸、电路、使用手册等，按需提供。

通常这些文件应至迟在会前四周由 IECEE 秘书分发给申诉委员会的主席和四名成员以及他们将参与此次申诉的代理。所有文件的副本也应发给有关申诉的各方。

B.6　当各方同意可用通信方式处理该事件时，B.5 条也适用。投诉人应事先表示愿意支付可能的费用。

可以由申诉委员会的主席提议解决办法，供申诉委员会的成员们考虑。IECEE 秘书有责任协助这些成员和有关各方。

When the decision is taken by correspondence, notes or minutes relevant to the decision shall be written.

B.7 The Board of Appeal shall deal with the case confidentially.

B.8 The parties involved each have the right to call an expert to advise the Board of Appeal on matters relevant to the case.

B.9 During the adjudication of the case, only the Chairman, the four members or their deputies and the Secretary of the Board of Appeal shall be present.

B.10 The Board of Appeal shall give its recommendations in writing, within one month after the meeting, to the parties, and, if action with regard to standards is needed, to the General Secretary of the IEC.

B.11 The recommendations of the Board of Appeal shall be presented to the CMC at its next meeting in such a way as to safeguard the anonymity of the parties, when that is desired. When an NCB or a Member Body of the IECEE has not followed a recommendation of the Board of Appeal, the CMC shall decide on appropriate steps to be taken.

当使用通信方式做出决定时，应保留有关的书面记录或纪要。

B.7　申诉委员会应以保密方式处理投诉事件。

B.8　有关各方都有权聘请一位专家，针对与投诉事件有关的事项为申诉委员会提供建议。

B.9　在对申诉事件做出仲裁时，只应由申诉委员会的主席、四名成员或他们的代表和申诉委员会秘书出席。

B.10　申诉委员会应在会后的一个月内，以书面形式将他们的建议发送给有关各方，如果需要采取涉及到标准的行动，还应将建议报送 IEC 秘书长。

B.11　若有关各方提出要求，申诉委员会的建议应以确保有关各方匿名的方式提交下一次 CMC 会议。如果相关，当 NCB 或 IECEE 的成员机构没有遵循申诉委员会的建议时，CMC 应决定需要采取的适当的措施。

ANNEX C

(normative)

Approved IECEE Categories

BATT – Batteries

CABL – Cables and Cords

CAP – Capacitors as components

CONT – Switches for appliances and automatic controls for electrical household appliances

EMC – Electromagnetic Compatibility

HOUS – Household and similar equipment

HSTS – Hazardous Substances

INST – Installation accessories and connection devices

LITE – Lighting

MEAS – Measuring instruments

MED – Electrical equipment for medical use

MISC Miscellaneous

OFF – IT and office equipment

POW – Low voltage, high power switching equipment

PROT – Installation protective equipment

PV – Photovoltaics

SAFE – Safety transformers and similar equipment

TOOL – Portable tools

TOYS – Electric Toys

TRON – Electronics, entertainment

附录 C
(规范性文件)
被批准的 IECEE 产品类别

BATT	—	电池
CABL	—	电线电缆
CAP	—	零部件用电容器
CONT	—	器具开关及家用电器自动控制器
EMC	—	电磁兼容
HOUS	—	家用及类似用途设备
HSTS	—	有毒有害物质
INST	—	安装附件及连接器件
LITE	—	照明设备
MEAS	—	测量设备
MED	—	医用电气设备
MISC	—	杂项类
OFF	—	信息技术及办公设备
POW	—	低压大功率开关设备
PROT	—	安装保护装置
PV	—	光伏产品
SAFE	—	安全变压器及类似设备
TOOL	—	便携式电动工具
TOYS	—	电动玩具
TRON	—	电子娱乐设备

ANNEX D
(normative)
Normative documents approved for use in the IECEE

The following normative documents have been approved by the Conformity Assessment Board for use within the IECEE for testing and certification purposes:

- IEC Standards for electrical equipment and components as well as interrelated horizontal standards included in the approved IECEE Categories listed in Annex C.

- ISO standards in cases where no relevant IEC standards exist for a product included in the approved IECEE Categories listed in Annex C.

附录 D
（规范性文件）
被批准在 IECEE 使用的规范性文件

下列规范性文件已被合格评定局批准在 IECEE 内用于测试和认证：

• 附录 C 中被批准的 IECEE 产品类别中的电气设备及零部件的 IEC 标准及相关基础标准。

• 附录 C 中被批准的 IECEE 产品类别中的产品如果没有相关 IEC 标准，可使用 ISO 标准。

ANNEX E
(normative)

Conditions for IECEE Membership by non-IEC member countries

0 FOREWORD

Bodies and organizations domiciled in non-IEC Member countries making application for acceptance into an IEC conformity assessment system shall fully satisfy all the conditions specified below.

1 CONDITIONS TO BE SATISFIED

1.1 Use of IEC standards to grant "national marks"

Within the country test and assessment work carried out under the IEC System will be recognized as the basis for national certification or approval by any existing or future national certification body(ies) proposed for participation in the System or will be accepted directly by the country's product approval authorities.

1.2 Well-established body recognized at national level by the authorities and the market

Applicant member bodies from non-IEC member countries must demonstrate the existence of a body(ies) operating a national certification or approval scheme recognized by the authorities and the market . If no such body(ies) exist, applicants must provide details of regulatory or other arrangements providing for direct acceptance of conformity assessment results.

1.3 IEC Membership

Applicants should undertake to apply for at least associate membership of the IEC within a maximum of three years after admission to a System. If not already an Affiliate the applicant must be prepared to participate in the Affiliate Program until such time as the applicant becomes a member of the IEC.

Countries suspended from the IEC may not be admitted to the IEC conformity assessment systems for a period of three (3) years following their suspension.

1.4 ExCo decision on acceptability

The IEC General Secretary shall be informed by the System secretariat of all applications (or possible applications, where known by the System secretariat) from non- IEC member countries, in order that the IEC ExCo may take a decision in principle as to their acceptability in terms of general IEC policy and any specific requirements with respect to IEC membership, after receiving the General Secretary's view on this. The ExCo decision shall be conveyed to the System.

附录 E
（规范性文件）
非 IEC 成员国申请 IECEE 资格的条件

0　前言

非 IEC 成员国的机构和组织申请被一个 IEC 合格评定体系组织接受，应完全满足以下条件。

1　需满足的条件

1.1　使用 IEC 标准颁发“国家标志”

在该国，在 IEC 体系下进行的测试和评审工作将被现有或将来提出加入 IEC 体系的国家认证机构作为国家认证或批准的基础，或者直接为该国负责产品认可的当局接受。

1.2　在国家一级被当局和市场认可的既定机构

非 IEC 成员国的成员机构申请方必须证明有一个或多个机构在运行被当局和市场接受的国家认证或批准体系。如果没有这样的机构存在，申请方必须提供法规或其他安排的详细信息，说明合格评定的结果可被直接接受。

1.3　IEC 成员资格

申请方在被 IEC 体系接纳后，应最长在三年的时间内申请至少成为 IEC 的准成员。如果申请方还不是附属成员，则必须准备加入 IEC 的附属计划，直到其成为 IEC 成员。

被 IEC 暂停资格的国家自暂停之日起三年之内不能加入 IEC 的合格评定组织。

1.4　执行委员会关于可否接受的决定

各体系组织的秘书处应通知 IEC 秘书长所有来自非 IEC 成员国的申请（或者各体系秘书处所知的可能的申请），这样 IEC 执行委员会可以在收到秘书长的意见后，根据 IEC 通用政策和任何与 IEC 成员资格相关的特定要求，在原则上决定它们是否可被接受。执行委员会的决定应告知各体系组织。

1.5 Compliance with system membership requirements

Applicants and associated certification bodies and testing laboratories must undertake to comply with all relevant System rules and requirements, including payment of annual dues and sharing of costs as defined in the System rules and varied by the System management committee.

2 PARTICIPATION RIGHTS

The applicant member body and associated certification bodies and testing laboratories have the same rights of participation in the activities of the System as are exercised by those System members, who are also members of the IEC, except that representatives of non-IEC member countries are not eligible for election to any officer position.

3 APPLICATION PROCEDURE

3.1 Member Body

An application for member body shall be made according to the Basic Rules and Rules of Procedure of the System and must include an undertaking to full commitment by its proposed certification body(ies), or relevant regulatory authorities, to recognize test and assessment work carried out by any member of the System for the purpose of granting the "National Mark" or other means of national recognition (ref. clause 1.1).

The applicant organization shall provide the following information:

- reasons for the application for membership;
- the timetable for joining the System;
- a description of the structure or proposed structure in the country related to member body, certification body(ies) and testing laboratory(ies) as well as the responsibility for standards;
- existence of mandatory and/or voluntary certification schemes;
- existence of national differences from IEC standards and of conflicting national standards or regulatory requirements, if any (where applicable);
- plans for participation in IEC standardization work.

3.2 Processing of applications

The complete member body application, fulfilling all of the requirements specified herein and the relevant requirements of the System Basic Rules and Rules of Procedure, shall be submitted to the System secretariat for evaluation and processing according to the Basic Rules, the Rules of Procedure and any relevant Operational Documents.

Prior to finalizing an application the System Secretary shall ensure that advice has been obtained from the General Secretary on the ExCo's decision with respect to acceptability in terms of general IEC policy and any specific requirements with respect to IEC membership (refer to 1.3 and 1.4).

The final decision of the System management committee will be notified to the applicant member body and to the IEC Conformity Assessment Board.

1.5　符合体系组织的成员资格要求

申请方和相关认证机构及测试实验室必须符合各相关体系组织的所有规则和要求，包括各体系规则的以及各体系管理委员会规定的年费的支付和费用分担的要求。

2　参加权利

成员机构申请方和相关认证机构及测试实验室与同时是 IEC 成员的体系成员在参加各体系活动方面享有同样的权利，但非 IEC 成员国的代表不能竞选任何官员职位。

3　申请程序

3.1　成员机构

申请成员机构应按照各体系组织的基本规则和规则程序进行，并且必须包括由其提名的认证机构或者相关法规当局做出的承诺，认可体系中其他成员的测试和评定结果以颁发“国家标志”或者其他形式的国家认可（见条款 1.1）

申请机构应提供以下信息：

◆ 申请成员资格的原因；

◆ 加入体系组织的时间表；

◆ 该国关于成员机构、认证机构、测试实验室以及在标准方面的责任的架构或者拟建立的架构的描述；

◆ 现存的强制或自愿认证体系；

◆ 现存的对 IEC 标准的国家差异和与 IEC 标准冲突的国家标准或法规要求（如适用）；

◆ 加入 IEC 标准化工作的计划。

3.2　申请的处理

成员机构的完整申请，在满足了本文所列的所有特定要求及相关的各体系基本规则和规则程序的要求后，应提交各体系组织的秘书处，根据基本规则、规则程序和其他相关操作文件进行评估和处理。

在申请完成前，各体系秘书应确保获得 IEC 秘书长对执行委员会决定的建议。执行委员会的决定涉及该成员机构根据 IEC 通用政策和任何与 IEC 成员资格相关的特定要求在原则上是否可被接受（见 1.3 和 1.4）。

各体系组织管理委员会的最终决议应通知成员机构申请方和 IEC 合格评定局。

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IECEE 02

Treizième édition
Thirteenth edition
2009-12

Méthode de l'IECEE d'Acceptation Mutuelle de Certificats d'Essai des Equipements et Composants Electrotechniques (Méthode OC) –

Règles de Procédure

Scheme of the IECEE for Mutual Recognition of Test Certificates for Electrotechnical Equipment and Components (CB Scheme) –

2. **Rules of Procedure**

Numéro de référence
Reference number
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IECEE
02

国际电工委员会

第十三版
2009-12

IECEE 电工设备及零部件测试证书互认体系
（CB 体系）
2. 程序规则

Numéro de référence
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INTERNATIONAL ELETROTECHNICAL COMMISSION

IEC SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (IECEE)

IECEE CB SCHEME FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (CB SCHEME)

RULES OF PROCEDURE

FOREWORD

This publication governs the Certification Body Scheme of the IECEE for testing and certification of electrotechnical equipment and components which includes appliances, systems, industrial and household equipment and sub-assemblies (CB Scheme).

It cancels and replaces Publication IECEE 02, Twelfth edition, 2008.

Changes from the second edition mainly concern the slimming-down of the organizational structure, whereby the former Management Committee (MC) and Committee of Certification Bodies (CCB) are replace by one committee, namely the Certification Management Committee (CMC).

This publication is directly related to Publication IECEE 01 containing the Basic Rules of the IECEE.

The annexe to this publication is normative.

The text of the amendments of this edition (IECEE 02, Thirteenth edition 2008) is based on the following Document.

Document	Report on voting
IECEE-CMC/1022/RM	CMC Decision

Full information on the approval of this publication can be found in the Minutes of the CMC meeting held in Stockholm on June 24/25, 2009.

国际电工委员会
IEC 电工设备及零部件合格评定体系（IECEE）
IECEE 电工设备及零部件测试证书互认体系（CB 体系）
程序规则

前　　言

本出版物规定了 IECEE 电工产品及零部件测试证书互认体系（CB 体系）的规则程序，这个体系涵盖了器具、系统、工业和家用设备及其零部件。

本出版物取代 IECEE 02，2008 年第 12 版。

与第二版相比的变化主要涉及组织结构的精简，即前管理委员会（MC）和认证机构委员会（CCB）由一个名为认证管理委员会（CMC）的机构所取代。

本出版物与包含 IECEE 基本规则的 IECEE 01 文件直接相关。

本出版物的附录是规范性的。

本版本（IECEE 02，2008 年第 13 版）内容的修改基于下列文件

文　　件	表决报告
IECEE-CMC/1022/RM	CMC 决议

有关本出版物批准情况的全部信息参见 2009 年 6 月 24～25 日在斯德哥尔摩召开的 CMC 年会的会议纪要。

INTRODUCTION

NOTE: This introduction provides an overview of the CB Scheme and is not part of the Rules.

In recognition of the need to facilitate international trade in electrotechnical equipment, and components primarily intended for use in homes, offices, workshops healthcare facilities and similar locations, for benefit of consumers, industries, authorities etc, and to provide convenience for manufacturers and other users of the services provided by various *National Certification Bodies (NCBs)*, an international Scheme is operated by the IECEE (IEC System for Conformity Testing and Certification of Electrotechnical Equipment and Components), known as the CB Scheme. The Scheme is based on the principle of mutual recognition (reciprocal acceptance) by its members of test results for obtaining certification or *approval* at national level.

The Scheme is intended to reduce obstacles to international trade which arise from having to meet different national certification or approval criteria. Participation of the various NCBs within the Scheme is intended to facilitate certification or approval according to IEC standards. Where national standards are not yet completely based on IEC standards, declared *national differences* will be taken into account; however, successful operation of the Scheme presupposes that national standards are reasonably harmonized with the corresponding IEC standards. Use of the Scheme to its fullest extent will promote the exchange of information necessary in assisting manufacturers around the world to obtain certification or approval at national level.

The operating units of the Scheme are the NCBs accepted according to these Rules. Those NCBs employ testing laboratories also accepted according to the Rules, known as *CB Testing Laboratories (CBTLs)*. A list of NCBs is published in the CB Bulletin.

The CB Scheme is based on the use of CB Test Certificates which provide evidence that representative specimens of the product have successfully passed tests to show compliance with the requirements of the relevant IEC standard. A supplementary report providing evidence of compliance with declared national differences in order to obtain national certification or approval may also be attached to the CB Test Report.

The first step for an NCB, intending to operate in the CB Scheme, is to be accepted as a *Recognizing NCB*. Such an NCB is prepared to recognize CB Test Certificates as a basis for certification or approval at national level for one or more categories of products

The second step for an NCB, which can be taken at the same time as the first step, is to be accepted as an *Issuing and Recognizing NCB*. Such an NCB is entitled to issue CB Test Certificates for the categories of equipment for which it recognizes CB Test Certificates. It should, however, be noted that an NCB may recognize CB Test Certificates for more categories of equipment than for which it is entitled to issue CB Test Certificates.

The Rules are formulated in such a way as to make them applicable in different national certification structures.

Definitions are given in clause 3.

简　　介

注：本简介描述了 CB 体系的概况，不属于规则的一部分。

由于认识到推动那些主要用于家庭、办公场所、车间、保障设施及类似场所的电工设备及其零部件的国际贸易的需要，为了消费者、各工业企业和主管部门的利益，也为了方便各国家认证机构（NCBs）所服务的制造商和其他用户，IECEE（IEC 电工设备及零部件合格评定体系）运作了一个国际体系，称为 CB 体系。该体系以其成员互认（相互接受）测试结果的原则为基础，来获得国家级认证或批准。

该体系旨在减少由于必须满足不同国家认证或批准准则而造成的国际贸易壁垒。各国 NCBs 参与该体系意在推动按照 IEC 标准进行认证或批准。在国家标准尚未完全以 IEC 标准为基础的国家，应考虑其所声明的国家差异。然而，CB 体系成功运作的先决条件是国家标准与相应 IEC 标准的合理协调。最大限度地利用该体系，将促进必要的信息交流，以帮助世界各国的制造商获得国家级的认证或批准。

CB 体系的执行单位是按照本规则所接受的各 NCB。这些 NCB 使用按照本规则接受的测试实验室，称为 CB 测试实验室（CBTLs）。NCB 的名单发布在 CB 公报上。

CB 体系以利用 CB 测试证书为基础，CB 测试证书提供了产品的有代表性的样品已成功通过测试的证据，表明它符合相关 IEC 标准的要求。为了获得国家级认证或批准，CB 测试报告还可附有证明该样品符合已声明的国家差异的补充报告。

对于有意加入 CB 体系的 NCB，第一步是被接受为认可 NCB。此类 NCB 应认可 CB 测试证书，以之作为对一类或多类产品进行国家级认证或批准的基础。

第二步，该 NCB 被接受为颁发和认可 NCB，这一步可与第一步同时进行。此类 NCB 有权在其认可 CB 测试证书的产品类别范围内颁发 CB 测试证书。但应注意一个 NCB 认可 CB 测试证书的产品类别可多于授权颁发的产品类别。

本规则的制定方式，使其能够适用于不同的国家认证结构。

相关定义在本规则第三条给出。

IEC SYSTEM OF CONFORMITY ASSESSMENT SCHEMES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS (IECEE)

IECEE CB SCHEME FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTROTECHNICAL EQUIPMENT AND COMPONENTS
–

RULES OF PROCEDURE

1 Scope

This publication contains the Rules of Procedure of the IECEE CB Scheme for Mutual Recognition of Test Certificates for Electrotechnical Equipment and Components (CB Scheme).

The CB Scheme is applicable to Electrotechnical Equipment and Components primarily intended for use in homes, offices, workshops, healthcare facilities and similar locations.

2 Normative references

The following publications contain provisions which, through reference in this text, constitute provisions of these Rules of Procedure. At the time of publication, the editions indicated were valid. The IECEE Certification Management Committee (CMC) shall decide the timetable for the introduction of new publications or revised editions of existing publications.

IECEE 01: 2008, *IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE)*

ISO/IEC Guide 2: 2004, *Standardization and related activities - General vocabulary.*

ISO/IEC 17000: 2004 Conformity assessment - Vocabulary and general principles

ISO/IEC 17025: 2005, *General requirements for the competence of calibration and testing laboratories.*

ISO/IEC 17040: 2005 Conformity assessment - General requirements for peer assessment of conformity assessment bodies and accreditation

ISO/IEC Guide 65: 1996, *General requirements for bodies operating product certification systems.*

ISO/IEC Guide 67: 2004, Conformity assessment — Fundamentals of product certification

3 Definitions

ISO/IEC Guide 2 gives the basic definitions.

For the purpose of the CB Scheme, the following special definitions apply:

3.1 National Certification Body (NCB)

a body which operates a national certification or approval scheme for Electrotechnical equipment and components in a country that has a Member Body of the IECEE

IEC 电工设备及零部件合格评定体系（IECEE）
IECEE 电工设备及零部件测试证书互认 CB 体系
程序规则

1　范围

本出版物包含了 IECEE 电工设备及零部件测试证书互认 CB 体系（CB 体系）的程序规则。

CB 体系适用于通常用于家庭、办公室、车间、保健设施和类似场所的电工产品及零部件。

2　规范性参考文件

下列出版物中所包含的条款，通过本文中的引用而构成本程序规则的条款。在出版时，所标明的版本均为有效版本。IECEE 认证管理委员会（CMC）应决定何时采用新的出版物或现有出版物的修订版本。

IECEE 01：2008，《IEC 电工设备及零部件合格评定体系（IECEE）》

ISO/IEC 导则 2：2004，《标准化及相关活动——通用词汇》

ISO/IEC 17000：2004，《合格评定——词汇和通用原则》

ISO/IEC 17025：2005，《校准和测试实验室能力通用要求》

ISO/IEC 17040：2005，《合格评定——合格评定机构及认可机构同行评审通用要求》

ISO/IEC 导则 65：1996，《实施产品认证制度的机构的通用要求》

ISO/IEC 导则 67：2004，《合格评定——产品认证基础》

3　定义

ISO/IEC 导则 2 给出了基本定义。

CB 体系中使用下列专有定义。

3.1　国家认证机构（NCB）

在具有 IECEE 成员机构的国家内实施电工设备及零部件的国家认证或批准制度的机构。

3.2
Recognizing NCB
an NCB which is, or has been appointed by, a Member Body of the IECEE, and accepted according to these Rules, and which is prepared to recognize CB Test Certificates for specified IEC standards as a basis for national certification or approval

3.3
Issuing and Recognizing NCB
a Recognizing NCB which has also been accepted according to these Rules for issuing CB Test Certificates for specified standards

3.4
CB Testing Laboratory (CBTL)
a testing laboratory which, after having been proposed as a candidate by an Issuing and Recognizing NCB, and which, after having been successfully assessed according to these Rules, is accepted into the CB Scheme

3.5
national differences
those requirements or test parameters in the corresponding national standard which, when applied to equipment complying only with the standard accepted for use in the IECEE, might entail non-compliance of that equipment with the relevant national standard

NOTE 1: When a requirement in the IEC standard is not implemented in the corresponding national standard, that is also a national difference.

NOTE 2: Those restrictive requirements in a national standard, which do not deviate from the criteria included in the corresponding standard accepted for use in the IECEE, but which limit the possibility to offer the relevant equipment for sale in the country concerned, are also considered to be national differences.

3.6
applicant
a firm or a person who applies to an Issuing and Recognizing NCB for obtaining a CB Test Certificate or to a Recognizing or Issuing and Recognizing NCB for national certification or approval on the basis of a CB Test Certificate

NOTE: The applicant is the holder of the CB Test Certificate

3.7
manufacturer
an organisation, situated at a stated location or stated locations, that carries out or controls such stages in the manufacture, assessment, verification, handling and storage of a product.
A Manufacturer has full responsibility for continued compliance of the product with the relevant requirements and undertakes all obligations in that connection.

3.8
standards used in the IECEE Schemes
The IECEE is based on the use of specific IEC standards for electrotechnical equipment and components accepted by the CMC for use in the IECEE.

Specific CAB approval is required should the CMC propose to make use of normative documents, other than IEC standards.

3.9
factory
the location at which the product is produced or assembled and follow-up service is established by the NCB

3.2　认可 NCB

按照本规则被接受的 NCB，它认可根据特定的 IEC 标准所出具的 CB 测试证书以作为国家级认证或批准的基础。认可 NCB 可以是 IECEE 成员机构或其指定的机构。

3.3　颁发和认可 NCB

按照本规则被接受，可以在特定的标准范围内颁发 CB 测试证书的认可 NCB。

3.4　CB 测试实验室（CBTL）

经颁发和认可 NCB 提名，并按照本规则进行评审合格后被接受加入 CB 体系的测试实验室。

3.5　国家差异

国家标准中所规定的某些要求或测试参数。将其应用于只符合 IECEE 所采用的标准的产品时，可能使该产品不符合有关的国家标准。

注 1：当 IEC 标准的要求在相应的国家标准中未被采用时，也属于国家差异。

注 2：国家标准中的限制性要求，即使并未偏离 IECEE 采用的相应标准中的准则，但如果限制了在有关国家销售这些产品的可能性，也被认为是国家差异。

3.6　申请人

向颁发和认可 NCB 申请获得 CB 测试证书，或依据 CB 测试证书向认可 NCB 或颁发和认可 NCB 申请获得国家级认证或批准的公司或个人。

注：申请人是 CB 测试证书的持有者。

3.7　制造商

位于一个或多个固定地点，实施或控制产品的制造、评价、验证、搬运和存储等各阶段活动的组织。制造商对产品持续符合有关要求负有全面责任，并承担所有相关义务。

3.8　IECEE 体系使用的标准

IECEE 体系是以使用电工设备及零部件的 IEC 标准为基础的，使用的具体标准要得到 CMC 的认可。如果 CMC 建议使用 IEC 标准以外的规范性文件，需要得到 CAB 的批准。

3.9　生产厂

生产或组装产品并接受 NCB 跟踪服务的场所。

3.10
approval
acceptance of a product by an authority having the appropriate jurisdiction

3.11
Acceptance of Standards used in the IECEE Schemes
At the time of application, a formal declaration made by the IECEE National Certification Body (NCB) to the IECEE Secretariat that the NCB accepts the relevant Standards used in the IECEE Schemes, as the basis for the national certification.

3.12
Extension of scope
a formal application made by the NCB to the IECEE Secretariat, with copy to the responsible Member Body of the IECEE for that NCB, seeking the extension of its scope as a Recognizing or Issuing/Recognizing Body to declared standards.

3.13
operational documents
normative documents approved by the CMC and used to cover the various operations within the CB Scheme such as applications, assessments, Test Report Format, etc. The Operational Documents are used in conjunction with the Basic Rules IECEE 01 and Rules of Procedure IECEE 02.

3.14
Scope of NCB and its associated CBTL(s)
The standards for which the NCB and its associated CBTL(s) have been formally accepted by the IECEE.

NOTE: The scope of the NCB and its associated CBTL(s) is published on the IECEE website

4 Rules

4.1 General

4.1.1 The *IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE)* operates a scheme with the aim of facilitating international trade by promoting and simplifying certification and approval at national level through mutual recognition of test results. CB Test Certificates according to 4.2.1 are used as the means for mutual recognition of test results.

4.1.2 The Scheme is called “IECEE CB Scheme for Mutual Recognition of Test Certificates for Electrotechnical Equipment and Components”, hereinafter referred to as “the CB Scheme”.

4.1.3 The CB Scheme shall be governed by the CMC, whose responsibilities in this respect are defined in the Basic Rules of the IECEE, as given in Publication IECEE 01.

4.1.4 The IEC, IECEE and combination IEC/IECEE logos are copyrighted and belong to the IEC. Their use is restricted to official documents published by the IEC or the IECEE or both and shall not be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior permission in writing from the IECEE Secretary.

3.10　批准

产品被具有适当权限的主管机构所认可。

3.11　接受 IECEE 体系使用的标准

IECEE 国家认证机构（NCB）在申请时向 IECEE 秘书处提交的正式声明，表示 NCB 接受 IECEE 体系所使用的相关标准，并将其作为国家认证的基础。

3.12　扩项

由 NCB 向 IECEE 秘书处提出的将其认可或颁发/认可范围扩大至申报的 IEC 标准范围的正式申请，该申请同时抄送 NCB 的成员机构。

3.13　操作文件

由 CMC 批准并覆盖 CB 体系内各种活动，如申请、评审、测试报告格式等的规范性文件。操作文件与 IECEE 01-基本规则和 IECEE 02-程序规则文件配合使用。

3.14　NCB 及其 CBTL（s）的范围

NCB 及其 CBTL（s）被 IECEE 正式接受的标准。

注：NCB 及其 CBTLs 的范围公布在 IECEE 网站上。

4　规则

4.1　总则

4.1.1　国际电工委员会电工产品及零部件合格评定体系（IECEE）运作了一个方案，通过测试结果的互认，推动和简化国家级认证和批准，达到促进国际贸易的目的。依据 4.2.1 条款出具的 CB 测试证书是用以实现测试结果相互认可的方法。

4.1.2　本方案称为“IECEE 电工产品及零部件测试证书互认 CB 体系”，以下简称“CB 体系”。

4.1.3　CB 体系应由 CMC 进行管理，CMC 在此方面的职责在 IECEE 的基本规则－IECEE 01 出版物中做出规定。

4.1.4　IEC、IECEE 及 IEC/IECEE 3 个标识的版权属于 IEC 组织。其用途仅限于 IEC、IECEE 或其联合发布的官方文件，未经 IECEE 秘书的事先书面许可，不得以任何电子的或机械的形式或方法，包括影印和微缩胶片拍摄加以复制或使用。

4.2 CB Test Certificates

4.2.1 A CB Test Certificate is a document issued by an Issuing and Recognizing NCB to inform other NCBs, in conjunction with the attached CB Test Report, that one or more specimens of certain electrical products were fully tested according to the relevant requirements of one or more standard(s) applicable to the electrical products accepted for use in the IECEE, unless otherwise permitted by the relevant standard(s) and that the specimens were found to be in conformity with that (those) standard(s). A CB Test Certificate is valid only when the IECEE documented CB Test Report (in agreed harmonised form) is attached. The CB Test Report will fully and completely cover the applicable and relevant test results according to the requirements of the standard(s), and when requested also according to declared national differences.

4.2.2 The CMC shall decide on the layout and content of CB Test Certificates. The CB Test Certificate shall always contain a clear description of the product, the name and address of the applicant, manufacturer and factory or factories (see definitions) and the edition of the IEC standard, and amendments, if any.
The CB Test Certificate shall be signed by authorized person(s) operating within the Certification department of the responsible NCB.
The name(s) and signature(s) of the authorized person(s) shall clearly appear on the CB Test Certificate and the names shall be declared to the IECEE Secretariat and listed in the Quality Procedure used by the NCB to process the CB Scheme.

A Test Report shall be attached to each CB Test Certificate giving, as far as necessary, for each clause of the relevant standard a brief reference to the requirements, and the results of tests and examinations. The Test Report shall also contain the information necessary for identification of the product, such as type designation, ratings, description and photographs.

4.2.3 CB Test Certificates shall not be used in any form of advertising or sales promotion.

NOTE: This subclause does not preclude the holder of a CB Test Certificate from making reference to the existence of that Certificate in business correspondence related to equipment for which a CB Test Certificate has been issued.

4.2.4 Modifications to products declared in a valid CB Test Certificate are limited to three, after which a new CB Test Certificate shall be issued and a new surcharge levied if applicable. This shall not preclude issuing a new CB Test Certificate at every modification if the Issuing NCB wishes to do so.

When a product is subject to "Modifications" regardless of the suffix used to identify the CB Test Certificate, i.e. the letter "M" followed by 1, 2 or 3, the CB Test Certificate shall clearly identify the nature of such "Modifications" under "Additional Information".

A re-issued CB Test Certificate shall include the original issue date and revision date under "Additional Information".

4.2.5 A CB Test Certificate may be cancelled by the issuing NCB if

- the Certificate is misused,
- the Certificate has been issued in error, the equipment no longer corresponds to the specimens tested and described in the attached Test Report, or
- the holder of the Certificate requests cancellation.

4.2.6 When a CB Test Certificate has been cancelled, the Secretary of the IECEE shall be notified as soon as possible by the issuing NCB, which shall state the reason for cancellation.

The Secretary of the IECEE shall inform the manufacturer and all NCBs participating in the CB Scheme for the standard concerned that the relevant CB Test Certificate has been cancelled, and give the reason for the cancellation.

4.2　CB 测试证书

4.2.1　CB 测试证书是由颁发和认可 NCB 所颁发的文件，与所附的 CB 测试报告一起用来通知其他 NCB，说明某种电工产品的一个或多个样品已经按照 IECEE 所采用的一个或多个适用标准的相关要求进行了完整的测试（除非标准另有规定），且该样品符合标准。CB 测试证书只有在附有相应的 CB 测试报告（使用经同意的协调的格式）时才有效。CB 测试报告应完全、完整地包含标准中所有适用相关要求的测试结果，在有要求时，还应包括已声明的国家差异的测试结果。

4.2.2　CMC 应决定 CB 测试证书的版面编排和内容。CB 测试证书应始终包含产品的清晰描述、申请人、制造商、一个或多个生产厂（见定义）的名称和地址，以及 IEC 标准的版本和修正件（如有）。

CB 测试证书应由相关 NCB 的认证部门中具备相应授权的人员进行签发。

授权签发人（一个或多个）的名字和签名应在 CB 测试证书上清晰显现。授权签发人的名字应向 IECEE 秘书处申报，并在 NCB 涉及 CB 体系运行的质量文件中列出。

每份 CB 测试证书均应附有测试报告，报告中应根据需要对有关标准的每一条款的要求做出简要说明，并给出测试检验的结果。测试报告还应包含识别产品所必需的信息，如型号名称、额定值、产品描述及照片。

4.2.3　CB 测试证书不得用于任何形式的广告和销售推广活动。

注：本子条款的规定并不排除 CB 测试证书的持有者可以在涉及已获测试证书的相关产品的业务通信中提到持有该项证书一事。

4.2.4　对一张有效的 CB 测试证书所涉及产品的 M 类变更不得超过三次，超过三次后应颁发新的 CB 测试证书，并征收新的附加费（如适用）。但颁发 NCB 如果愿意，也可以在每一次变更时均颁发新的 CB 测试证书。

当产品发生“M 类变更”时，不论用以识别 CB 测试证书的后缀如何，比如字母“M”及其后跟随数字 1、2、3，都应在 CB 测试证书的“附加信息”中清楚表明变更的性质。

重新颁发的 CB 测试证书应在“附加信息”栏中包含原证书的颁发日期和修改日期。

4.2.5　如出现下列情况，颁发 NCB 可撤销 CB 测试证书：

－ 滥用证书；

－ 颁发的证书有错误，产品不再与经测试并在 CB 测试报告中描述的样品相符；

－ 证书持有者要求撤销。

4.2.6　当某一 CB 测试证书被撤销时，颁发 NCB 应尽快通知 IECEE 秘书处并说明撤销的理由。

IECEE 秘书处将通知制造商和 CB 体系中与该标准有关的所有 NCB 有关证书已被撤销，并说明撤销的理由。

NOTE: Each NCB concerned decides for itself if any certification or approval at national level based on that CB Test Certificate should be revoked.

4.3 Participation in the CB Scheme

4.3.1 Any Member Body of the IECEE shall have the right to nominate a candidate NCB under the conditions stated in 4.3.2. The membership is subject to acceptance by the CMC.

When there is more than one accepted NCB in a country, national arrangements shall be made to provide the co-ordination necessary for the operation according to these Rules.

An NCB shall not be, or be influenced by, a body which manufactures or trades in electrotechnical equipment and components.

NOTE: The Member Body of IECEE and the NCB may be the same body.

4.3.2 An NCB shall be accepted by the CMC either as a Recognizing NCB according to 5.1 or as an Issuing and Recognizing NCB according to 5.2.

NOTE: The acceptance described in this subclause may be made in two steps or in one step.

4.3.3 When certification or approval is needed in a country as a condition to sell a product, it shall be declared by the candidate NCB that the national certification or approval can be based on a CB Test Certificate. When other conditions have to be fulfilled, they shall also be declared for later publication in the CB Bulletin.

4.3.4 An NCB nominated by a Member Body of the IECEE to participate in the CB Scheme shall, via the Member Body of the IECEE, send a written application to the Secretary of the IECEE who shall submit the application to the CMC for decision.

The application shall contain the following:

a) information on legal status, address etc of the candidate NCB;

b) a written declaration by the candidate NCB that it is ready to provide for recognition of CB Test Certificates as a basis for national certification or approval to specified standards as required by 4.3.3. The number, the edition, and amendments, if any, shall be specified for each standard. The date from which CB Test Certificates will be recognized at national level shall also be stated for each standard.

c) a declaration by the candidate NCB that is willing to abide by these Rules.

An Issuing and Recognizing NCB will not be authorized to issue CB Test Certificates for a standard until CB Test Certificates for that standard are recognized by that NCB.

National differences, if any, from the specified standards, as well as other requirements (see 4.3.3), shall also be indicated in the application for later publication in the CB Bulletin.

There shall not be more than one set of national differences for each country.

NOTE: Candidate NCBs are strongly recommended to keep the number of national differences as low as possible.

The arrangements, when relevant, between the Member Body of the IECEE and the candidate NCB, shall be described, and a written statement from the NCB that it accepts the arrangement and permits the Member Body of the IECEE to act on its behalf according to these Rules shall be submitted.

4.3.5 Each Member Body of the IECEE shall communicate the following information relevant to the recognition of CB Test Certificates to the Secretary of the IECEE:

注：各有关 NCB 自行决定是否取消在该 CB 测试证书基础上所做出的国家级认证或批准。

4.3 CB 体系的参与

4.3.1 IECEE 中的任一成员机构都有权按 4.3.2 条规定的条件提出候选 NCB，而成员资格需经 CMC 批准。

当一个国家有一个以上被接受的 NCB 时，应在其国内安排必要的协调，以便能够按照本体系规则进行运作。

NCB 不得是从事电工设备及零部件制造或贸易的机构，也不得受其影响。

注：IECEE 成员机构和 NCB 可以是同一个机构。

4.3.2 国家认证机构应按 5.1 条被 CMC 接受为认可 NCB，或按 5.2 条被接受为颁发和认可 NCB。

注：本条款所说的接受，可以分两步或一步进行。

4.3.3 当在一个国家内销售产品需以国家认证或批准为条件时，候选 NCB 必须声明，该国的国家认证或批准可以以 CB 测试证书作为基础。当必须满足其他条件时，也必须声明，以便今后在 CB 公告中公布。

4.3.4 经 IECEE 成员机构提名加入 CB 体系的 NCB 应通过该成员机构向 IECEE 秘书处递交书面申请，并由秘书处将该申请报送 CMC 做出决定。

申请应包含下述内容：

a）候选 NCB 的法律地位、地址等信息。

b）候选 NCB 的书面声明，该声明按照 4.3.3 条的要求，表明该 NCB 准备在指定标准范围内认可 CB 测试证书作为获得国家级认证或批准的基础。应说明每一项标准的标准号、版本和修订件（如有），以及从何时开始认可 CB 测试证书。

c）候选 NCB 表示愿意遵守本规则的声明。

当一个颁发和认可 NCB 尚未认可某个标准的 CB 测试证书时，将不授权该 NCB 对此项标准颁发 CB 测试证书。

与指定标准的国家差异（如有）和其他要求（见 4.3.3）也应在申请中指出，以便在以后的 CB 公告中公布。

每个国家的国家差异不得多于一套。

注：强烈建议候选 NCBs 尽可能的减少国家差异的数量。

如果相关，IECEE 成员机构与候选 NCB 之间的安排必须做出说明。候选 NCB 应提交书面声明，表明接受此安排并允许 IECEE 成员机构按照本规则的要求代其行事。

4.3.5 每一个 IECEE 成员机构应将下述有关认可 CB 测试证书的信息传送给 IECEE 秘书：

- whether or not written information on procedures and rules for certification or approval at national level is available;
- whether or not a foreign manufacturer is required to make application for certification or approval at national level through representatives resident in that country.

4.3.6 Each Member Body of the IECEE shall inform the Secretary of the IECEE about changes in the information given according to 4.3.4 and about the information according to 4.3.5.

4.3.7 An NCB wishing to discontinue recognizing CB Test Certificates for certain standards shall, via the Member Body of the IECEE, notify the Secretary of the IECEE and shall indicate the date from which the discontinuation becomes effective at least one year in advance. Such a notice automatically cancels the right to issue CB Test Certificates to those standards. It is the duty of the Secretary to inform all other Member Bodies of the decision.

4.3.8 An NCB wishing to withdraw from the CB Scheme shall notify the Secretary of the IECEE at least one year in advance and shall indicate the reason for the withdrawal and the date from which the withdrawal will become effective. The annual dues for that NCB shall be paid for the calendar year following the year during which the notice was given.

4.3.9 Should, in the opinion of the CMC, an NCB hamper the aim, operation or development of the CB Scheme, fail to take action regarding misuse of CB Test Certificates or violate these Rules, the CMC has the right to exclude or to suspend that NCB from the CB Scheme.

A decision to exclude or suspend an NCB shall be taken in accordance with the provisions of 5.6 of Publication IECEE 01.

4.4 The CB Bulletin

4.4.1 The CB Bulletin shall be made available at intervals decided by the CMC.

4.4.2 The CB Bulletin shall contain information about

- categories of products covered by the CB Scheme,
- standards accepted for use in the CB Scheme,
- the product standards for which NCBs in each country have declared recognition of CB Test Certificates,
- national differences for each standard and country as declared by the NCB(s) and confirmed as detailed in clause 5.2.9 of this IECEE Rules of Procedure,
- important rules in addition to the content of the standards which have to be fulfilled in the countries,
- the product categories for which NCBs in each country are authorized to issue CB Test Certificates,
- CB Test Certificates issued,
- accepted NCBs, and
- the operation of the CB Scheme, to assist the applicants.

4.4.3 The information published in the CB Bulletin is based on information given by the Member Bodies of the IECEE. Neither the IEC nor the Secretary of the IECEE is therefore liable for the accuracy of that information.

4.5 Complaints

— 是否已有关于国家级认证或批准的程序和规则的书面资料；

— 是否要求国外的制造商通过居住在该国的代理人来办理国家级认证或批准的申请。

4.3.6　每一个 IECEE 成员机构应将根据 4.3.4 和 4.3.5 条提供的信息的变化情况通知 IECEE 秘书。

4.3.7　一个 NCB 如希望终止认可某些标准的 CB 测试证书，应通过 IECEE 成员机构通知 IECEE 秘书，并应至少提前一年指明终止开始生效的日期。上述通知同时自动取消了该 NCB 对这些标准颁发 CB 测试证书的权利。IECEE 秘书有责任将上述决定通知所有其他成员机构。

4.3.8　一个 NCB 如希望退出 CB 体系，须至少提前一年通知 IECEE 秘书，并说明退出原因和退出决定开始生效的日期。该 NCB 应交纳自提出通知之年起下一个日历年的年费。

4.3.9　如果 CMC 认为某个 NCB 妨碍了 CB 体系的目标、运作或发展，未能对滥用 CB 证书或违反本规则的行为采取措施，则 CMC 有权将该 NCB 从 CB 体系中除名或暂停其资格。

除名或暂停一个 NCB 资格的决定应按照 IECEE 01 出版物的第 5.6 条规定执行。

4.4　CB 公告

4.4.1　CB 公告应按照 CMC 决定的周期发布。

4.4.2　CB 公告应包含以下方面的信息：

— CB 体系所覆盖的产品类别；

— CB 体系采用的标准；

— 各国 NCB 已声明的认可 CB 测试证书的产品标准；

— 由 NCB 声明，并经过本程序规则 5.2.9 条所述的确认的各国对各个标准的国家差异；

— 除标准内容外，在各国必须满足的重要规则；

— 各国 NCB 被授权颁发 CB 测试证书的产品类别；

— 已颁发的 CB 测试证书；

— 已被接受的 NCBs；

— 有助于申请者的 CB 体系的运作情况。

4.4.3　CB 公告中发布的信息来自各 IECEE 成员机构所提供的资料。IEC 或 IECEE 秘书对这些信息的准确性不担负法律责任。

4.5　投诉

If there are complaints concerning the behaviours of an NCB or CBTL, the case shall be reported to the Secretary of the IECEE with due documentation of evidence. After review and acceptance of the complaint, the Secretary of the IECEE will submit the case to the Board of Appeal in accordance with the procedure as per the Basic Rules IECEE 01 Annex B.

5 Acceptance of National Certification Bodies and of CB Testing Laboratories

5.1 Recognizing NCBs

5.1.1 Prerequisites for Acceptance

5.1.1.1 The NCB shall operate a national certification scheme for electrotechnical equipment and components that provides market access to the country of the NCB.

5.1.1.2 The NCB shall be nominated to the IECEE by its IECEE Member Body

Note: Anyone in any country is free to recognize CB Test Certificate in the market place. However, only organizations that comply with these requirements are eligible to be accepted as IECEE Recognizing NCBs.

Note:

a A Recognizing NCB should not be, or be influenced by, a body which manufactures or trades in electrotechnical equipment and components.

b A Recognizing NCB should be impartial and not offer assistance or other services which may compromise the objectivity of its certification activities and decisions.

5.1.2 Application for Acceptance

5.1.2.1 An application for the acceptance of an NCB as a Recognizing NCB for one or more Product Categories / Standards accepted for use in the IECEE (IECEE Categories) shall be made by the candidate NCB through the Member Body the IECEE in the country of the candidate NCB.

5.1.2.2 The application shall be submitted to the Executive Secretary of the IECEE and shall be accompanied by the documentation as detailed in OD-CB2007 as far as applicable.

5.1.3 Acceptance

5.1.3.1 The Executive Secretary and two appointed Lead Assessors will perform an administrative assessment of the application documentation to determine whether the candidate Recognizing NCB fulfils the Prerequisites for Acceptance (5.1.1) and complies with other applicable requirements of these Rules of Procedure.

5.1.3.2 A positive outcome will result in a recommendation to the Peer Assessment Committee for the acceptance of the Candidate NCB by the CMC.

5.1.4 Suspension

5.1.4.1 When it is determined that an NCB no longer fulfils the “Requirements for a Recognizing NCB” or if it violates these Rules of Procedure, the NCB shall be offered the opportunity to take corrective action over a period to be determined on a case-by-case following the nature of the infringement.

5.1.4.2 The acceptance of a Recognizing NCB may be suspended or withdrawn by the CMC on recommendation of the Executive Secretary if it no longer fulfil the “Requirements for a Recognizing NCB” or continues to violate these Rules of Procedure or attempts to inflict damage upon the IECEE’s reputation or image.

如果有针对某个 NCB 或 CBTL 的投诉出现，应将有关情况及相关证据资料报送 IECEE 秘书。在核实并受理该投诉后，IECEE 秘书应根据 IECEE 01 基本规则中附录 B 所规定的程序将相关资料上报申诉委员会。

5 接受国家认证机构及 CB 测试实验室

5.1 认可 NCBs

5.1.1 接受的先决条件

5.1.1.1 该 NCB 应运作国家级的电工设备及零部件认证体系，为其所在国提供市场准入。

5.1.1.2 NCB 的提名应由该国成员机构向 IECEE 提出。

注：任何国家的任何人都可以在市场上认可 CB 测试证书。但是，只有符合本规则要求的机构才能够被接受为 IECEE 认可 NCBs。

注：a. 认可 NCB 不得是从事电工设备及零部件制造或贸易的机构，也不得受这类机构的影响。

b. 认可 NCB 应是公正的，不得提供任何可能损害其认证活动和决定客观性的帮助或其他服务。

5.1.2 申请

5.1.2.1 就 IECEE 所采用的一个或多个产品类别/标准（IECEE 类别）被接受为认可 NCB 的申请应由候选 NCB 经由其所在国的 IECEE 成员机构提交。

5.1.2.2 申请书应向 IECEE 执行秘书递交，只要适用，还应附有 OD-CB2007 中所列出的文件。

5.1.3 接受

5.1.3.1 IECEE 执行秘书及两名指定的主任评审员对申请文件进行管理评审，确定候选的认可 NCB 是否满足被接受的先决条件（5.1.1）并符合本规则程序的其他适用要求。

5.1.3.2 如果结果是肯定性的，将向同行评审委员会推荐 CMC 接受该候选 NCB。

5.1.4 暂停

5.1.4.1 如果确定一个 NCB 不再满足“对认可 NCB 的要求”或违反了本规则程序，将给予该 NCB 一定的期限采取纠正措施，具体期限根据违规的性质个案分析决定。

5.1.4.2 如果一个认可 NCB 不再满足“对认可 NCB 的要求”或继续违反本规则程序，或企图对 IECEE 的声誉或形象造成损害，根据 IECEE 执行秘书的建议，CMC 可暂停或撤销该认可 NCB 的资格。

5.1.4.3 In case of a suspension or withdrawal, the Recognizing NCB shall no longer claim any association with the IECEE.

5.2 Acceptance of Issuing and Recognizing NCBs

NOTE: When an application is made for acceptance of an NCB that intends to employ already accepted CBTLs, assessment is made according to this subclause.

Applications for acceptance of an NCB and an associated testing laboratory may be submitted together or as one combined application, and assessment according to 5.2 and 5.3 may be combined.

5.2.1 An NCB may be given the right by the CMC to issue CB Test Certificates for specified individual product categories in compliance with specified standards according to the procedures stipulated in 5.2.2 to 5.2.10 and under the following conditions:

a) the NCB shall be well established and fulfil the conditions of 5.1.1 for at least the standards for which acceptance to issue CB Test Certificates is sought. When the candidate NCB has not earlier been accepted as a Recognizing NCB according to 5.1, the conditions of 5.1.1 shall be included in the assessment;

b) the NCB has within its organization, or has an agreement to employ, a CBTL accepted by the IECEE according to 5.3 of these Rules for the relevant product standards;

   NOTE: See the Note to 5.2 under the headline.

c) an Issuing and Recognizing NCB shall not be, or be influenced by, a body which manufactures or trades in Electrotechnical equipment and components. Furthermore, the NCB shall be impartial and not offer assistance or other services which may compromise the objectivity of its certification activities and decisions;

d) the competence of the NCB to comply with these Rules shall be demonstrated by assessment. The general competence, efficiency, experience, familiarity with the relevant standards and the products included in those standards as well as compliance with applicable parts of the relevant ISO/IEC Guide 65 shall be taken into consideration. Accreditation, if any, shall be taken into account when a recognized national accreditation body provides an accreditation service in the country.

e) Experience is considered sufficient when, within the last 2 (two) years, at least 10 Certificates have been issued for the product category applied for but at least one Certificate for the specific part 2 standard applied for

NOTE: NCBs are encouraged to recognize CB Test Certificates over a wider product area than covered by their right to issue CB Test Certificates.

5.2.2 An application for the acceptance of an NCB to issue CB Test Certificates for one or more specified individual products in compliance with specified standards accepted for use in the IECEE shall be made by the candidate NCB, via the Member Body of the IECEE in the country of the candidate NCB.

The application shall be submitted to the Secretary of the IECEE and shall be accompanied by the relevant documentation as detailed in OD-CB2007.

NOTE: When a laboratory is integrated in the organization of the NCB, the application according to this subclause for the NCB and 5.3.2 for the testing laboratory may be combined.

5.2.3 The candidate Issuing and Recognizing NCB shall be assessed by three experts to be appointed by the Secretary of the IECEE with a view to determining whether the conditions according to 5.2.1 are fulfilled. These assessors shall normally be recruited from Issuing and Recognizing NCBs.

5.1.4.3　如被暂停或撤销资格，该认可 NCB 不得声称与 IECEE 有任何关联。

5.2　接受颁发和认可 NCBs

注：当提出申请的 NCB 打算使用已被接受的 CBTLs 时，评审工作按照本条的规定执行。

NCB 和与其相关联的测试实验室的申请可以一起提交，或合并为一份申请进行提交，按照 5.2 条及 5.3 条进行的评审工作也可以合并进行。

5.2.1　根据下述条件并按照 5.2.2～5.2.10 条规定的程序，CMC 可授予一个 NCB 按照规定标准对特定产品类别颁发 CB 测试证书的权利：

a）该 NCB 应是被广为接受的机构，并至少对申请颁发 CB 测试证书所用的标准能满足 5.1.1 条的要求。当候选 NCB 尚未按照 5.1 条的要求被接受为一个认可 NCB 时，对其所进行的评审须包含 5.1.1 条的要求。

b）该 NCB 拥有就相关产品标准按本规则 5.3 条被 IECEE 接受的 CB 测试实验室，或者和这样的实验室签有协议。

注：见标题 5.2 条下的注。

c）颁发和认可 NCB 不得是从事电工设备及零部件制造或贸易的机构，也不得受此类机构的影响。并且，该 NCB 应是公正的，不得提供任何可能损害其认证活动和决定客观性的帮助或其他服务。

d）该 NCB 遵守本规则的能力应通过评审来证实。其总的能力、效率、经历和对有关标准及这些标准所覆盖的产品的熟悉程度，以及是否符合 ISO/IEC 导则 65 的适用部分等方面是必须考虑的。如在该国有提供认可业务的公认的国家认可机构，则其所提出的认可意见（如有）应予以考虑。

e）如果在过去两年中，申请的每个产品类别已颁发至少 10 张证书，且该类别内的每个具体标准已颁发至少一张证书，就认为具有充足的经历。

注：鼓励各 NCBs 认可 CB 测试证书的范围大于颁发 CB 测试证书的产品范围。

5.2.2　申请按照 IECEE 采用的特定标准为一种或多种产品颁发 CB 测试证书的申请书，应由候选 NCB 经其所在国的 IECEE 成员机构提交。

申请书应向 IECEE 秘书递交，并应附有 OD－CB2007 所列的相关文件。

注：当实验室是 NCB 组织整体的一个部分时，本条所规定的 NCB 的申请及 5.3.2 条所规定的测试实验室的申请可合并提交。

5.2.3　候选的颁发和认可 NCB 应由 IECEE 秘书指定的三名专家进行评审，以确定其是否满足 5.2.1 条的要求。上述评审员一般来自颁发和认可 NCB。

At the discretion of the IECEE Secretary, the number of experts may be reduced or increased to accommodate the scope of the application and the size of the candidate NCB.

When a testing laboratory is to be assessed on the same occasion, a combined assessment team of three persons may be appointed.

The candidate NCB shall be given the names and qualifications of the assessors proposed to be appointed by the Secretary of the IECEE. Candidates may object "for cause" (reasons to be stated) to the appointment of the assessors. The mandate given to the assessors shall be clearly defined and made known to the candidate. The mandate shall include critical assessment of any national differences from IEC standards.

The NCB to be assessed shall express its willingness to pay the travelling and living expenses and other applicable fees (see 5.4) arising from the assessment. An estimate of these expenses and fees shall be provided to the candidate NCB in advance by the assessors and agreed to by the candidate NCB.

During the assessment visit, the assessors shall prepare a draft report which shall be discussed with the management of the candidate NCB. Efforts should be made to resolve any differences of opinion between the assessors and the NCB during the discussion of those reports.

5.2.4 The assessors shall submit to the Secretary of the IECEE, with a copy to the representatives of the candidate NCB, a confidential Assessment Report containing their findings and recommendations, taking into account the declaration submitted together with the application. Representatives of the candidate NCB may be invited to a meeting for discussion of its application, to respond to inquiries.

5.2.5 The **"Open Part*"** of the Assessment Report is posted on the dedicated restricted area of the IECEE Web Site for the IECEE Member's review and submit their comments on the Assessment Report to the IECEE Secretary within one month of the date of posting on the Web Site.

Thereafter, the Secretary will notify the candidate on the outcome whilst awaiting formal decision by the CMC at its next regularly scheduled meeting.

* NOTE: The "Open Part" of the Assessment Report is composed of the Assessment Report, Annexes 1, 2 and 3 and the Non-Conformance sheets.

5.2.6 The Secretary of the IECEE shall submit a consolidated report with recommendations to the CMC for decision.

5.2.7 If the outcome of the Members' review is positive, the Secretary of the IECEE shall submit a final recommendation to the CMC for decision.

5.2.8 If the outcome of the Members' review is negative, the Secretary of the IECEE may, depending on the findings, suggest to the candidate Issuing and Recognizing NCB:

- to withdraw the application, or
- to modify the application, or
- to put the application on hold, or
- To confirm acceptance after a new series of at least three CB Certificates on products covered by similar Standards have been satisfactorily reviewed by an appointed NCB within a further one year period.
- to submit to a new assessment.

5.2.9 When an Issuing and Recognizing NCB wishes to extend its acceptance to further products or standards accepted for use in the IECEE, an application shall be submitted to the Secretariat of the IECEE with copy to the relevant Member Body.

IECEE 秘书应根据候选 NCB 的规模和申请范围进行判断，以增减评审专家的人数。

当测试实验室同时进行评审时，可以指定由三人组成的联合评审组。

应向候选 NCB 提供由 IECEE 秘书指定的评审员的姓名和资质。候选 NCB 出于某种原因（需说明理由）可以反对所指派的评审员。给予评审员的授权必须明确规定，并应告知候选 NCB。该授权应包括对有关 IEC 标准的国家差异的严格评审。

接受评审的 NCB 须表示愿意支付评审所需的差旅费、生活费和评审过程中发生的其他适用的费用（见 5.4 条）。评审员应事先向候选 NCB 提供上述费用的预算，并取得该 NCB 的同意。

在评审访问期间，评审员应完成一份评审报告草稿，并与候选 NCB 的管理层进行讨论。评审员与候选 NCB 之间应力求解决讨论中的任何分歧。

5.2.4　评审组应向 IECEE 秘书提交一份包含评审结果和建议的保密的评审报告，并抄送候选 NCB 的代表。给出评审结果和建议时，应考虑与申请书一起提交的申报文件。候选 NCB 的代表可以被邀请出席讨论其申请的会议，以便回答对其申请的询问。

5.2.5　评审报告的**"公开部分*"**将发布在 IECEE 网站上的专门限制区中，IECEE 的成员对报告进行评阅，并在报告发布之日起一个月内向 IECEE 秘书提交对该评审报告的意见。

此后，IECEE 秘书应将评阅结果通知候选者，同时等待 CMC 在下一次例会中的正式决定。

* 注：评审报告的"公开部分"由评审报告和附件 1、2、3 以及不符合项报告组成。

5.2.6　IECEE 秘书应提出含有推荐意见的综合报告，交 CMC 做出决定。

5.2.7　如果各成员评阅的结果是肯定性的，IECEE 秘书应将最终推荐意见报送 CMC 做出决定。

5.2.8　如果各成员评阅的结果是否定性的，IECEE 秘书可以根据具体问题向候选的颁发和认可 NCB 提出如下建议：

- 撤销申请；
- 变更申请；
- 搁置申请；
- 在一年内，对类似标准所覆盖的产品颁发至少三张 CB 测试证书，经指定 NCB 审核合格后，确认接受其资格；
- 接受一次新的评审。

5.2.9　当一个颁发和认可 NCB 希望将其资质扩大到 IECEE 范围内的其他产品或标准时，应向 IECEE 秘书处提出申请，同时抄送相关成员机构。

If this is the first application for a standard for that country the NCB shall provide the NDs for that standard together with supporting evidence e.g. a statement or a publication by a Member Body, a Regulator authority or a standardization body.

Arrangements on evidence of National Differences shall be made between the NCB(s) and the relevant Member Body at national level prior submitting the application to the IECEE Secretariat.

Upon acceptance of the application, the extension of the scope is processed by the IECEE Secretariat according to the present Rules of Procedure and the relevant Operational Documents. Upon completion of the acceptance process the applicant NCB is granted with a provisional acceptance whilst awaiting the endorsement by the CMC.

5.2.10 By means of re-assessment every three (3) years, the assessors shall verify whether the conditions of 5.2.1 are still fulfilled.

5.2.11 The acceptance of an Issuing and Recognizing NCB may be suspended or withdrawn by the CMC on recommendation of the Secretary of the IECEE if that NCB no longer fulfils the conditions of 5.2.1 or if it violates these Rules. Before such a recommendation is made, the NCB shall be given the opportunity to take corrective action over a period of six months and state its own opinion on the matter (see also 4.3.9 and 4.5).

In case of a suspension, the NCB in question shall not be allowed to claim relations with the IECEE or the CB Scheme.

5.3 Acceptance of testing laboratories as CB Testing Laboratories

NOTE: Applications for acceptance of an NCB and associated testing laboratory(ies) proposed by the candidate NCB may be submitted together or as one combined application, and their assessment according to 5.2 and 5.3 may also be combined.

5.3.1 Acceptance of a testing laboratory as a CBTL is subject to the procedures stipulated in 5.3.2 to 5.3.12 and to the following conditions:

a) Whether or not the testing laboratory has its domicile in the country of the Issuing and Recognizing NCB which is proposing it for the specified individual products and for the standards concerned, it may be eligible for acceptance as CBTL to participate in CB Scheme. In this case, the candidate laboratory shall either

- be an integral part, such as a department, division, branch or subsidiary of that Issuing and Recognizing NCB, or
- be under the complete technical and legal control of that Issuing and Recognizing NCB, or
- have a written agreement with that Issuing and Recognizing NCB clearly outlining the commitment, duty and responsibility of both parties to follow these Rules;

A CBTL shall not be permitted to participate in the CB Scheme for an IEC Standard accepted for use in the Scheme when its responsible NCB has not been accepted for that IEC Standard.

A CBTL shall not be permitted to participate in the CB Scheme for more than one NCB in the same product category(ies)/standard(s).

A CBTL is permitted to participate in the CB Scheme for more than one NCB under the following conditions:

i) In different product category(ies)/standard(s); and,

ii) In the EMC & PV categories when two or more NCBs have signed an agreement with the CBTL and each NCB shall assume the responsibilities for the activities of the CBTL in the EMC & PV categories.

如果这是 NCB 所在国家对某个标准第一次提出申请，NCB 应提供该标准的国家差异及支持性证据，如成员机构、管理当局或标准化机构的声明或出版物。

在向 IECEE 秘书处提交申请之前，成员机构和 NCB（s）应在国家层面做好国家差异的安排。

收到申请后，IECEE 秘书处按照目前程序规则和操作文件的规定进行扩项处理。顺利完成各个步骤后，给予 NCB 临时接受的资质，同时等待 CMC 的认可。

5.2.10　通过 3 年一次的复评审，评审员确认 5.2.1 条的要求是否仍能得到满足。

5.2.11　如果一个颁发和认可 NCB 不再满足 5.2.1 条的要求，或违反了本规则，根据 IECEE 秘书的建议，CMC 可以暂停或撤销该颁发和认可 NCB 的资格。在提出上述建议之前，应给予该 NCB 6 个月的期限采取纠正措施，以及就此事陈述自己意见的机会（见 4.3.9 及 4.5 条）。

在暂停资格的情况下，该 NCB 不得声称与 IECEE 或 CB 体系有任何关联。

5.3　接受测试实验室成为 CB 测试实验室

注：候选 NCB 的申请和它所推荐的关联测试实验室的申请可以一起提交，或合并为一份申请加以提交，根据 5.2 条及 5.3 条进行的评审也可合并完成。

5.3.1　接受一个测试实验室成为 CBTL，必须满足下述条件，并按照 5.3.2～5.3.12 条规定的程序进行：

a）不论测试实验室是否位于就相关产品和标准推荐它的颁发和认可 NCB 所在的国家，都有资格被接受为 CBTL 参加 CB 体系的活动。在这种情况下，该候选实验室应：

－ 是该颁发和认可 NCB 组织的一部分，如一个部门、科室、分支或一个附属机构；

－ 在技术和法律方面都处于该颁发和认可 NCB 的完全控制之下；

－ 与该颁发和认可 NCB 签有书面协议，明确规定双方在遵循本规则时的承诺、义务与职责。

当一个 NCB 尚未就体系所采纳的某项 IEC 标准加入 CB 体系时，它的 CBTL 也不能就这项标准加入 CB 体系。

一个 CBTL 不得就同一个产品类别/标准通过一个以上的 NCB 加入 CB 体系。

但在下述情况下，一个 CBTL 可以挂靠多个 NCB：

i）针对不同的产品类别/标准；

ii）在 EMC 和 PV 产品类别内，两个或以上的 NCBs 与同一个 CBTL 签署协议，每个 NCB 承担该 CBTL 在 EMC、PV 类别内的活动的责任。

b) a CBTL shall not be, or be influenced by, a body which manufactures or trades in electrotechnical equipment and components. Furthermore, the CBTL shall be impartial and not offer assistance or other services which may compromise the objectivity of its testing activities and decisions;

c) the competence of the testing laboratory shall be demonstrated by assessment. The general competence, efficiency, experience, familiarity with the relevant standards and the products included in those standards as well as compliance with applicable parts of the relevant ISO/IEC 17025 shall be taken into consideration. Accreditation, if any, shall be taken into account when a recognized national accreditation body provides an accreditation service in the country.

d) Experience is considered sufficient when, within the last 2 (two) years, at least 10 Test Reports have been issued for the product category applied for but at least one Test Report for the specific part 2 standard applied for.

5.3.2 An application for the acceptance of a laboratory as a CBTL for testing of specified individual products according to one or more standards accepted for use in the IECEE and which are in the scope of the Issuing and Recognizing NCB proposing the candidate laboratory, shall be made by the NCB, via the Member Body of the IECEE for that NCB.

The application shall be submitted to the Secretary of the IECEE and shall be accompanied by the relevant documentation as detailed in OD-CB2007.

NOTE: When the laboratory is integrated in the organization of an NCB for which an application according to 5.2.2 will be submitted at the same time, the two applications may be combined as one application.

5.3.3 The candidate testing laboratory shall be assessed by three experts to be appointed by the Secretary of the IECEE with a view to determining whether the conditions according to 5.3.1 are fulfilled. These assessors shall normally be recruited from Issuing and Recognizing NCBs and CBTLs. At least one member shall belong to a CBTL.

At the discretion of the IECEE Secretary, the number of experts may be reduced or increased to accommodate the scope of the application and the size of the candidate CBTL.

When the laboratory is integral with a candidate NCB, or is to be assessed on the same occasion as a candidate NCB, a combined assessment team of three persons may be appointed.

A designated representative of the responsible NCB shall always be present during the assessments, follow-up assessments and re-assessments of the CBTLs for which the NCB is responsible. When the CBTL is operating with more than one NCB, unless otherwise agreed between the NCBs and accepted by the IECEE Secretary, each responsible NCB shall delegate one representative to be present during the relevant assessments, follow-up assessments and re-assessments.

The candidate shall be given the names and qualifications of the assessors proposed to be appointed by the Secretary of the IECEE. Candidates may object “for cause” (reasons to be stated) to the appointment of the assessors. The mandate given to the assessors shall be clearly defined and made known to the candidate.

The laboratory to be assessed shall express its willingness to pay the travelling and living expenses and other applicable fees (see 5.4) arising from the assessment. An estimate of these expenses shall be provided to the candidate laboratory in advance by the assessors and agreed to by the candidate laboratory.

During the assessment visit, the assessors shall prepare a draft report which shall be discussed with the management of the candidate testing laboratory. If requested in the application, another draft report shall also be prepared on a preliminary assessment covering additional products or standards, pending formal application for an extension of acceptance to be submitted in accordance with 5.3.

5.3.4 The assessors shall submit to the Secretary of the IECEE, with a copy to the representatives of the candidate testing laboratory, a confidential report containing their findings and recommendations, taking into account the declaration submitted together with the application. Representatives of the candidate testing laboratory may be invited to a meeting for discussion of its application, to respond to inquiries.

b）CBTL 不得是从事电工设备制造或贸易的机构，也不得受此类机构的影响。并且该CBTL 应是公正的，不得提供任何可能损害其测试活动和决定的客观性的帮助或其他服务。

c）测试实验室的能力应通过评审来证实。其总的能力、效率、经历和对有关标准及这些标准所覆盖的产品掌握的熟练程度，以及是否符合 ISO/IEC 导则 17025 的适用部分等方面是必须考虑的。如在该国有提供认可业务的公认的国家认可机构，则其所提出的认可意见（如有）应予以考虑。

d）如果在过去 2 年中，申请的每个产品类别已出具至少 10 份测试报告，且该类别内的每个具体标准已出具至少 1 份报告，就认为具有充足的经历。

5.3.2　当一个实验室申请成为可按照 IECEE 采用的一个或多个标准对指定产品进行测试的 CBTL，并且上述标准在推荐该候选实验室的颁发和认可 NCB 的范围之内时，申请应由 NCB 经由其 IECEE 成员机构提出。

该申请应提交 IECEE 秘书，并附有如 OD-CB2007 所详细规定的文件。

注：当候选实验室是 NCB 组织的一部分，并且该 NCB 同时按 5.2.2 条提出申请时，这两份申请可以合并为一份加以提交。

5.3.3　候选的测试实验室须由 IECEE 秘书任命的 3 名专家进行评审，以确定其是否满足 5.3.1 条的要求。上述评审员一般应从颁发和认可 NCB 以及 CBTL 指派，其中至少应有 1 人来自 CBTL。

根据候选 CBTL 的申请范围及规模，IECEE 秘书可以决定增减评审专家的人数。

当该实验室是一个候选 NCB 整体的一部分时，或是与一个候选 NCB 同时评审时，可以任命由 3 人组成的联合评审组。

NCB 应指派一名代表参与该 CBTL 的初评、跟踪评审及复评。当该 CBTL 挂靠一个以上的 NCB 时，除非各 NCB 之间另有协议并得到 IECEE 秘书的认可，否则每个 NCB 都应指派一名代表参加该实验室的初评、跟踪评审及复评。

应向候选机构提供由 IECEE 指派的评审员的姓名和资质。候选机构由于“某种原因”（须说明理由）可以反对指定的评审员。给予评审员的授权必须明确规定，并应告知候选机构。

接受评审的实验室须表示愿意支付评审所需的差旅费、生活费和评审过程中发生的其他适用的费用（见 5.4 条）。评审员应事先向候选实验室提供上述费用的预算，并取得该实验室的同意。

在评审访问期间，评审员应完成一份评审报告草稿，并与候选测试实验室的管理层进行讨论。如果申请书中有要求，还可以进行附加产品或标准的预评审，并准备预评审报告草稿，以备将来在按照 5.3 条的规定递交扩大接受范围的正式申请时使用。

5.3.4　评审组应向 IECEE 秘书提交一份包含评审结果和建议的保密的评审报告，并抄送候选测试实验室的代表。在给出评审结果和建议时，应考虑与申请书一起提交的申报文件。候选测试实验室的代表可以被邀请出席讨论其申请的会议，以便回答相关询问。

5.3.5 The "**Open Part***" of the Assessment Report is posted on the dedicated restricted area of the IECEE Web Site for the IECEE Member's review and submit their comments on the Assessment Report to the IECEE Secretary within one month of the date of posting on the Web Site.

Thereafter, the Secretary will notify the candidate on the outcome whilst awaiting formal decision by the CMC at its next regularly scheduled meeting.

* NOTE: The "Open Part" of the Assessment Report is composed of the Assessment Report, Annexes 1, 2 and 3 and the Non-Conformance sheets.

5.3.6 The Secretary of the IECEE shall then submit a consolidated report with recommendations to the CMC for decision.

5.3.7 If the outcome of the Members' review is positive, the Secretary of the IECEE shall submit a final recommendation to the CMC for decision.

5.3.8 If the outcome of the Members' review is negative, the Secretary of the IECEE may, depending on the findings, suggest to the candidate laboratory and to the Issuing and Recognizing NCB proposing its candidacy:

- to withdraw the application, or
- to modify the application, or
- to put the application on hold, or
- to confirm acceptance after a new series of at least three Test Reports on products covered by similar Standards have been satisfactorily reviewed by an appointed NCB within a further one year period.
- to submit to a new assessment.

5.3.9 When a CBTL wishes to extend its acceptance to further products or standards accepted for use in the IECEE, an application shall be made to the Secretariat of the IECEE via the responsible NCB.

5.3.10 An Issuing and Recognizing NCB, which has operated successfully within the CB Scheme for at least two years and has issued at least 40 CB Test Certificates during that time, may submit to the Secretary of the IECEE, applications for recognition of other CBTLs within its technical area of acceptance under the Scheme.

The Secretary of the IECEE shall consider whether an assessment is needed and give his recommendation to the CMC for decision.

5.3.11 By means of re-assessment every three (3) years, the assessors shall verify whether the conditions of 5.3.1 are still fulfilled.

5.3.12 The acceptance of a CBTL may be suspended or withdrawn by the CMC, on recommendation of the Secretary of the IECEE, if the laboratory no longer fulfils the conditions of 5.3.1 or if it violates these Rules. Before such a recommendation is made, the laboratory and the NCB involved shall have the opportunity to take corrective action over a period of six months and state their own opinion on the matter (see also 4.3.9 and 4.5).

5.3.13 CBTLs should participate in the Committee of Testing Laboratories (CTL) of the IECEE. If that is not possible, the laboratory shall be kept informed about the decisions and recommendations of the CTL by the national Member Body of the IECEE. The use of the CTL Decisions is compulsory for the CBTLs.

5.3.5　评审报告的**“公开部分*”**将发布在IECEE网站上的专门限制区中，IECEE的成员对报告进行评阅，并在报告发布之日起一个月内向IECEE秘书提交对该评审报告的意见。

此后，IECEE秘书应将评阅结果通知候选者，同时等待CMC在下一次例会中的正式决定。

*注：评审报告的“公开部分”由评审报告，附件1、2、3，以及不符合项报告组成。

5.3.6　IECEE秘书应提出含有推荐意见的综合报告，交CMC做出决定。

5.3.7　如果各成员评阅的结果是肯定性的，IECEE秘书应将最终推荐意见报送CMC做出决定。

5.3.8　如果各成员评阅的结果是否定性的，IECEE秘书可以根据具体问题向候选实验室以及推荐它的颁发和认可NCB提出如下建议：

— 撤销申请；

— 变更申请；

— 搁置申请；

— 在一年内，对类似标准所覆盖的产品出具至少3份测试报告，经指定的NCB审核合格后，确认接受其资格；

— 接受一次新的评审。

5.3.9　当一个CBTL希望将其范围扩大到IECEE所采用的其他产品或标准时，须经NCB向IECEE秘书处提出申请。

5.3.10　如果一个颁发和认可NCB已经在CB体系内成功运作至少两年时间，并颁发了至少40份CB测试证书，则该NCB可向IECEE秘书提出申请，要求在其被接受的技术范围内，认可其他的CBTLs。

IECEE秘书应考虑是否需要进行评审，并提出其建议报CMC决定。

5.3.11　通过3年一次的复评审，评审员核实5.3.1条的要求是否仍能得到满足。

5.3.12　如果一个CBTL不再满足5.3.1条的要求或其违反了本规则，根据IECEE秘书的建议，CMC可以暂停或撤销对该实验室资格的接受。在提出上述建议之前，应给予该实验室及相关的NCB 6个月的期限采取纠正措施，以及就此事陈述自己意见的机会（见4.3.9及4.5条）。

5.3.13　CBTLs应参加IECEE的测试实验室委员会（CTL）。如不能，IECEE的国家成员机构应及时将CTL的决议和建议通知该实验室。CBTL应强制执行CTL决议。

5.4 Fees

5.4.1 A uniform daily assessment fee, the amount to be decided by the CMC, per assessor for each day spent on the assessment shall be invoiced by the employer of each assessor directly to the candidate NCB or CBTL.

5.4.2 A fee, the amount to be decided by the CMC, shall be remitted to the IECEE account by the applicant NCB or CBTL for each new request for acceptance or for extension of scope of existing acceptance.

6 Procedures for handling CB Test Certificates

6.1 General

6.1.1 An application for obtaining a CB Test Certificate may be made by an applicant to any Issuing and Recognizing NCB accepted for the relevant standard.

The applicant will be the holder of the CB Test Certificate.

6.1.2 The applicant may be a manufacturer or act on behalf of a manufacturer. In the latter case, evidence shall be submitted that the applicant is authorized to act on behalf of the manufacturer for the application and that the manufacturer undertakes the same obligations as the applicant.

NOTE: Those obligations may be to follow these Rules, the rules of the NCBs involved and legal obligations in the countries concerned.

6.1.3 The application may cover one or more factories within one or more countries, where the product will be manufactured.

6.1.4 An applicant in a country with no Member Body of the IECEE and an applicant acting on behalf of a manufacturer in such a country shall pay a contribution to the costs of the IECEE in the form of surcharge for each CB Test Certificate issued, the amount to be decided by the CMC. The surcharge is to be collected by the NCB handling the application, and remitted to the IECEE account.

6.1.5 Unless otherwise agreed between the applicant and the NCB, the tests shall be carried out by an accepted CBTL on the request of the NCB. Specific rules for utilization by an NCB of a manufacturer's test facilities are given in OD-CB2027.

6.2 Procedure for obtaining a CB Test Certificate

6.2.1 The application to the Issuing and Recognizing NCB shall contain as a minimum the following information:

- name and address of the applicant;
- name and address of the manufacturer, if different from the applicant;
- names and addresses of the factories where the product will be manufactured;
- name, trade marks or other markings by which the applicant, the manufacturer, when appropriate, and the factory can be unambiguously identified by an NCB;
- type designation and markings by which the product can be unambiguously identified by an NCB.

5.4　费用

5.4.1　根据每个评审员付出的时间和每天评审收费的统一标准，评审员的雇主直接向候选 NCB 或 CBTL 开具收费通知单。每天评审收费的统一标准由 CMC 决定。

5.4.2　对每个新申请或扩大其现有接受范围的要求，应由申请 NCB 或 CBTL 向 IECEE 账户支付费用，其数额由 CMC 决定。

6　运用 CB 测试证书的程序

6.1　总则

6.1.1　申请人可以向任一具有有关标准授权的颁发和认可 NCB 提出获取 CB 测试证书的申请。

申请人将是 CB 测试证书的持有者。

6.1.2　申请人可以是制造商或代表制造商行事。在后一种情况下，应提交证据证明，制造商授权申请人代表其办理申请，而且制造商与申请人承担同样责任。

注：上述责任可以指遵循本规则、相关 NCB 的规则以及有关国家的法律责任。

6.1.3　申请可以覆盖制造该产品的位于一个或几个国家中的一个或多个工厂。

6.1.4　如果申请人或者他所代表的制造商所在国家没有 IECEE 成员机构，则该申请人应对每份所颁发的 CB 测试证书付费，以附加费的形式为 IECEE 的运行成本做出贡献。附加费的数额由 CMC 决定，由受理该申请的 NCB 代为收取并汇至 IECEE 的账户。

6.1.5　除非申请人与 NCB 之间另有协定，NCB 应安排已被接受的 CBTL 进行测试。OD-CB2027 文件中给出了由 NCB 利用制造商测试设施的特定规则。

6.2　获得 CB 测试证书的程序

6.2.1　向颁发和认可 NCB 提交的申请至少应包含下述资料：

- 申请人的名称和地址；
- 如果制造商不同于申请人，应提交制造商的名称和地址；
- 制造产品的各工厂的名称和地址；
- 能够使 NCB 明确无误地识别申请人、制造商（适用时）和工厂的名称、商标或其他标识；
- 能够使 NCB 明确无误地识别产品的型号名称和标识。

6.2.2 The application shall be made and dealt with according to the rules of the Issuing and Recognizing NCB to which it is submitted. That NCB shall inform the applicant about the relevant rules and procedures and about the specimens needed for the testing.

6.2.3 Upon receipt of an application for a CB Test Certificate, the relevant Issuing and Recognizing NCB shall within one month arrange for testing of the relevant equipment. If the result of the tests is favourable, the NCB concerned shall sign and issue a CB Test Certificate to the applicant and send at the same time a copy of the certificate (not the attached Test Report) to the Secretary of the IECEE.

6.2.4 The applicant may also request testing to cover national differences in countries in which the CB Test Certificate is to be used.

If additional tests have been carried out, a report of the results may be attached to, and considered to be a part of, the Test Report.

6.2.5 When the application for obtaining a CB Test Certificate includes more than one factory location, the Applicant shall include a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory.

A statement shall be included in the CB Test Report confirming Manufacturer's declaration or where differences exist; they shall be identified in the CB Test Report.
NOTE: The statement may be the Manufacturer's declaration

The name and address of each factory shall be reported in the CB Test Report (where applicable for the relevant TRF) and on the CB Test Certificate.

6.2.6 The application, the results of the work done and the information obtained in connection with the application for a CB Test Certificate shall be confidential. However, basic identification data for the product may be published after the date of issue, unless particular confidentiality is agreed between the applicant and the Issuing and Recognizing NCB.

6.2.7 Disagreements between an Issuing and Recognizing NCB and an applicant may be dealt with according to the appeal procedure of the NCB.

If the applicant is not satisfied with the result of the appeal at national level, and if the disagreement concerns the application of these Rules, the dispute may be referred to the Board of Appeal of the IECEE.

6.3 Procedure for recognition of CB Test Certificates

6.3.1 When an applicant applies to a Recognizing or to an Issuing and Recognizing NCB for national certification or approval of a product on the basis of a CB Test Certificate, the application shall be accompanied by a copy of the CB Test Certificate with the attached Test Report and, if relevant, with attached reports covering national differences and, if required by the NCB, by a specimen of the product.

6.3.2 When applying for national certification or approval on the basis of a CB Test Certificate, an applicant shall follow the rules of procedure applicable in the country concerned and shall confirm readiness to comply with all the relevant national provisions regarding, for example, retesting, checking, factory surveillance, and payment of fees, as if the equipment had been tested in accordance with the procedures valid in that country.

6.3.3 The NCB shall examine the submitted CB Test Certificate (regardless of the location of the issuing NCB, even if that NCB is located in the same country as the recognizing NCB) and any required specimen to the extent considered necessary for the identification of the relevant equipment and for the recognition of the CB Test Certificate.

If the result of this examination is favourable, national certification or approval shall be granted by the NCB without additional testing following its own statutes and rules of procedure. However, if the test report does not cover declared national differences, if any, arrangements shall be made with the Applicant to carry out the additional evaluation and testing.

6.2.2　申请应按照颁发和认可 NCB 的规则进行提交和办理。该 NCB 应将有关的规则和程序以及测试所需的样品通知申请人。

6.2.3　在收到 CB 测试证书的申请后，有关的颁发和认可 NCB 应在一个月内安排相关产品的测试。如果测试结果合格，该 NCB 应向申请人签发 CB 测试证书，同时将证书的副本（不含附带的测试报告）送交 IECEE 秘书。

6.2.4　针对使用 CB 测试证书的目的国，申请人还可要求进行国家差异测试。

如果进行了附加测试，可以附上测试结果的报告，作为 CB 测试报告的一部分。

6.2.5　当申请覆盖一个以上工厂时，申请人应提交制造商的声明，说明提交认证的样品是各个工厂产品的代表性样品。

CB 测试报告中应包括一个陈述，确认制造商的声明或者存在差异的地方；CB 测试报告中应明确指出这些差异。

注：这个陈述可以是制造商的声明。

每个工厂的名称和地址都应在 CB 测试报告（如果相关的 TRF 适用）和 CB 测试证书上列出。

6.2.6　对于与申请 CB 测试证书有关的申请书、相关的工作结果和所获得的资料必须保密。不过，对于产品的基本识别数据，除非申请人与颁发和认可 NCB 之间有约定要特别保密之外，可以在证书颁发日期之后公布。

6.2.7　颁发和认可 NCB 与申请人之间的意见分歧，可以按照该 NCB 的申诉程序进行处理。

如果申请人对国家一级的申诉结果不满意，而且当上述意见分歧涉及本规则的应用时，可将争议提交 IECEE 申诉委员会。

6.3　CB 测试证书的认可程序

6.3.1　当申请人依据 CB 测试证书向认可 NCB 或颁发和认可 NCB 提出申请以获得产品的国家级认证或批准时，申请书应连同 CB 测试证书及其所附的测试报告和有关的国家差异报告（如有）一起提交。如果该 NCB 有要求，还需提交一个产品样品。

6.3.2　当依据 CB 测试证书申请获得国家级认证或批准时，申请人应遵守有关国家适用的程序规则，并须确认愿意遵守该国的所有有关规定，如复测、核对、工厂监督和交纳费用等，如同该产品直接按照该国的有效程序进行测试一样。

6.3.3　为了进行产品识别和认可 CB 测试证书，NCB 应对提交的 CB 测试证书和所要求的样品进行其认为必要的审查（不论颁发 NCB 的所在地，即使和认可 NCB 位于同一个国家）。

如果审查结果合格，应不再进行附加测试，由 NCB 按照其本身的章程和程序给予国家级认证或批准。但如果该测试报告不包括已经声明的国家差异（如有），则应与申请人安排进行附加评价和测试。

The NCB retains the right to test further the equipment to ascertain whether or not the equipment complies with the relevant standard. Such additional testing should be kept to a minimum.

6.3.4 The NCB may challenge the CB Test Certificate when it is more than three years old or when the standard according to which it was issued is no longer in force in the country of the NCB (see also 4.3.7).

6.3.5 The NCBs are encouraged to handle applications for recognition of CB Test Certificates within 15 working days.

6.3.6 Should the NCB receiving a CB Test Certificate for recognition consider it to have been issued in error, the NCB that issued the certificate shall be informed as soon as possible. If the NCBs involved arrive at different conclusions, the case may be referred to the Board of Appeal of the IECEE.

6.3.7 The NCBs shall have the right to keep for reference photographs, technical documentation and specimens or, for large equipment, parts of such equipment, when required according to their rules. Such reference material shall be confidential.

NCB 保留对产品进行进一步测试的权利，以确定该产品是否符合有关标准的要求。这种附加测试应保持在最低限度内。

6.3.4　当 CB 测试证书已超过三年或颁发该证书所依据的标准在 NCB 所在国已不再执行时，该 NCB 可对 CB 测试证书提出异议（见 4.3.7 条）。

6.3.5　鼓励各 NCB 在 15 个工作日内处理认可 CB 测试证书的申请。

6.3.6　如果认可 NCB 认为收到的 CB 测试证书有错误，应尽快通知颁发该证书的 NCB。如果相关的 NCB 得出不同的结论，则可将此情况提交 IECEE 申诉委员会。

6.3.7　如果 NCB 的规则有要求，则其有权保留照片、技术文件和样品或者大型产品的某些零部件用作参考。上述参考材料应是保密的。

IECEE

CB-SCHEME OD-CB2033-Ed.2.0

OPERATIONAL & RULING DOCUMENTS

3. Process Elements Related to Infringements of the Rules

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国际电工委员会电工设备及零部件合格评定体系

CB体系 **OD-CB2033-Ed.2.0**

操作和规范文件

3. 与违反规则相关的程序要素

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FOREWORD

The aim of this Operational Document is to provide process elements related to infringement of the IECEE Basic Rules, the Rules of Procedure and the Operational Documents (collectively "The IECEE Rules") by which the IECEE Executive Secretary and the Board of Appeal would consider any action.

These Process Elements should help strengthen the credibility of the IECEE both among the IECEE Member Bodies, the NCBs, their CBTLs, manufacturers, authorities and other stakeholders.
The aim of these Process Elements is also to not unnecessarily impact the NCB's customer.

Infringing Organization—A Member body, an accepted NCB or an accepted CBTL that separately or together infringe any of the IECEE Rules.

1. COMPLAINT

1.1 a) When the IECEE Secretary and the Infringing Organization(s) can resolve the infringement case, there is no need to involve the Board of Appeal.

b) When the IECEE Secretary and the Infringing Organization(s) cannot resolve the infringement case, the IECEE Secretary will call for the Board of Appeal to deal with the case in accordance with the IECEE Basic Rules IECEE 01, Sub-clause 10.1 b) and Annex B (extracted and included in this Operational Document).

c) In either case, a) or b), any infringement will lead to the issuance of a GNCR (General Non-Conformity Report) by the IECEE Secretary that is reported to – and monitored by – the ACAG (Assessment & Certification Advisory Group).

When the Board of Appeal is requested to deal with the case, any action notified by the Secretary to the involved party(ies) is under the jurisdiction and direction of the Board of Appeal.

1.2 When an Applicant, a Recognizing or Issuing and Recognizing NCB or a Member Body of the IECEE wishes to submit a complaint, it shall do so in writing to the Secretary of the IECEE.

1.3 Complaints may include, but are not limited to, the following:

a) Infringements of the IECEE Rules by a Member Body, an accepted NCB or an accepted CBTL
b) CB Test Certificates issued on the basis of testing carried out by unauthorized Testing Laboratory(ies)
c) CB Test Certificates issued on the basis of testing carried out by accepted CBTLs not operating with an NCB that is not its Responsible NCB
d) Counterfeit (improperly issues) CB Test Certificates
e) CB Test Certificates issued on the basis of testing carried out by a non-declared

前　言

此操作文件旨在提供关于违反 IECEE 基本规则、程序规则和操作文件（统称“IECEE 规则”）的程序要素，来作为 IECEE 执行秘书和申诉委员会考虑采取行动的依据。

这些程序要素将有助于加强 IECEE 在成员机构、NCB 及其 CBTL、制造商、管理当局和其他利益相关方中的信誉。

这些程序要素的目的也在于不对 NCB 的客户造成不必要的影响。

违规组织——单独或共同违反任何 IECEE 规则的成员机构、被接受的 NCB 或 CBTL。

1. 投诉

1.1

a）当 IECEE 秘书和违规组织能解决违规情况时，无需申诉委员会介入。

b）当 IECEE 秘书和违规组织不能解决违规情况时，IECEE 秘书将提请申诉委员会依据 IECEE 基本规则 IECEE 01，条款 10.1 b）和附录 B（引用并包含在此操作文件中）对违规情况进行处理。

c）a）或 b）任一种情况，IECEE 秘书处都将出具 GNCR（一般不符合报告），报告将提交 ACAG（评审和认证顾问委员会）并接受其监督。

当要求申诉委会介入处理案件时，秘书处通知相关方的任何行动都受到申诉委员会的管辖和指导。

1.2　当一个申请人、一个颁发和认可 NCB 或认可 NCB 或 IECEE 的成员机构希望提出投诉时，应以书面的形式提交给 IECEE 秘书。

1.3　投诉可以包括，但不局限于以下情况：

a）成员机构、被接受的 NCB 或 CBTL 对 IECEE 规则的违反；

b）依据未授权实验室的测试结果而颁发 CB 测试证书；

c）依据已被接受实验室的测试结果颁发的 CB 测试证书，但是颁发证书的 NCB 不是主管该实验室的 NCB；

d）假冒的（不正当出具）的 CB 测试证书；

e）基于未声明的制造商实验室（如 SMT）的测试结果而颁发的 CB 测试证书；

Manufacturer's Testing Laboratories (e.g. SMT)

f) others…

1.4 When the Secretary **is provided with objective evidence** that the IECEE Rules have been infringed, the Secretary shall send an official notification to the Infringing Organization requesting comments about the situation and acknowledgement of the facts **within one week**. If the Infringing Organization is a CBTL, the official notification is sent to the responsible NCB(s) with a copy to the CBTL.

1.5 Upon receipt of the comments and acknowledgement from the Infringing Organization, the Secretary will examine the overall elements provided by the **Complaining Organization**, if any, (Sub-clause 1.1) and **the Infringing Organization** and propose to the involved parties an **action plan** to resolve the infringement.

1.6 The **Action Plan** may vary depending on the nature of the infringement; however, if the infringement is such that it may compromise the credibility of the Scheme such as the improper issuance of a CB Test Certificate, the Board of Appeal will be requested (by the IECEE Secretary) to legislate according to the Rules as set by the Appendix B of the Basic Rules IECEE 01 and the process described in Clauses 2., 3. and 4. of the present Operational Document shall be followed.

1.7 When the consequence of the infringement is related to or affects the safety/compliance of the product with the IEC standard:

a) The relevant Manufacturer shall provide to the Member NCB that has issued the involved CBTC(s)/CBTR(s), the names of the Member NCBs who have granted their Certification Mark based on the involved CBTC(s)/CBTR(s).
b) The Member NCB that has issued the involved CBTC(s)/CBTR(s) shall inform the Member NCBs who have granted their Certification Mark based on the involved CBTC(s)/CBTR(s) about the details of the problem related to the safety/compliance of the relevant product(s).

2. FIRST INFRINGEMENT

2.1 The **Infringing Organization** shall be notified by the Secretary, with a copy to the Applicant, holding the involved CB Test Certificate(s) and that they have 30 days to determine the root cause and take corrective actions to overcome the infringement (e.g. by re-testing at their own expense the relevant product(s) in a CBTL accepted to operate for the relevant scope under the **Infringing Organization** and validate that the product complies with the relevant standard(s) following proper IECEE procedures.

2.2 If it is determined that the product does not comply with the relevant standard(s), a plan must be worked out between the **Infringing Organization** and the Applicant within 10 business days to bring the product into compliance and the IECEE Secretary notified at once.

2.3 If it is determined that the product complies with the relevant standard(s), the improperly issued CB Test Certificate is cancelled and replaced by a new CB Test Certificate.

f）其他情况……

1.4　若秘书收到了有关违反 IECEE 规则的**客观证据**，应发出正式的通知给违规组织，要求其在一周内对情况作出解释并确认事实。如果违规组织是 CBTL，正式通知应发给其责任 NCB 并抄送该 CBTL。

1.5　收到违规组织回复的解释和事实确认后，秘书将评估由**投诉方**（若有）(条款 1.1）和**违规组织**提供的所有材料，并向所有涉及的相关方提出解决的**行动计划。**

1.6　**行动计划**视违规的性质不同而异。如果违规情况可能损害 CB 体系的信誉，例如不恰当颁发 CB 测试证书，（IECEE 秘书处）将要求申诉委员会依据基本规则 01 附录 B IE-CEE，以及此操作文件的第 2、3 和 4 条条款中规定的程序执行。

1.7　当违规的后果关系到或影响到产品安全或产品与 IEC 标准的符合性时：

a）涉及的制造商应向颁发该 CB 测试证书/报告的 NCB 提供那些依据该 CB 测试证书/报告颁发了认证标志的 NCB 的名字。

b）颁发该 NCB 测试证书/报告的 NCB 应该向那些依据该 CB 测试证书/报告颁发了认证标志的 NCB 说明相关产品涉及安全/符合性的问题的详细情况。

2. 首次违反

2.1　秘书应通知**违规组织**，并同时抄送相关 CB 测试证书的申请人，**违规组织**应在 30 天内调查问题的根源并依据恰当的 IECEE 程序采取整改措施以纠正该违规事例（例如，**违规组织**自己承担费用在其下属的被接受的从事相关范围测试的 CBTL 对相关产品进行重新测试，验证产品符合对应的标准)。

2.2　如果确定产品不符合对应的标准，**违规组织**和申请人必须在 10 个工作日内做出计划，使产品符合标准，并立即通知 IECEE 秘书。

2.3　如果确定产品符合对应标准，则取消不正当颁发的 CB 测试证书，并重新颁发新的 CB 测试证书。

2.4 The **Infringing Organization** shall also review their records within 30 days and self declare to the IECEE Secretary any other CB Test Certificates that may have been improperly issued using the same unauthorized Laboratory.

2.5 Those CB Test Certificates declared must also be validated at the **Infringing Organization's** expense within 60 days of the original notification by the IECEE Secretary.

2.6 If the **infringing Organization** is not showing appropriate goodwill to resolve the situation, the IECEE Secretary will notify the Infringing NCB that their authorization to issue CB Test Certificates for that standard(s) and Product Category has been suspended for a period to be determined in addition to the cancellation of the affected CB Test Certificates.

2.7 The **Infringing Organization shall in any case successfully undergo an on-site re-assessment to maintain their acceptance for operating within the IECEE.**

3. SECOND INFRINGEMENT (after successful resolution of the first infringement)

3.1 The **Infringing Organization** shall be notified by the Secretary that their authorization to operate in the IECEE has been suspended for the relevant Standard(s)/Product Category and that a successful on-site re-assessment will be necessary to reinstate their acceptance status for the relevant scope.

3.2 The relevant Member Body will be notified by the IECEE Secretary about the Infringing NCB's suspension to operate in the IECEE for the relevant standard(s)/product category.

3.3 The product(s) affected by the improperly issued CB Test Certificate shall be validated by another NCB, as chosen by the Applicant, at the expense of the **Infringing Organization** within 30 days.

3.4 If it is determined that the product(s) does(do) not comply with the relevant standard(s), a plan must be worked out between the **Infringing Organization** and the Applicant within 10 business days to bring the product into compliance and the IECEE Secretary notified at once.

3.5 If it is determined that the product(s) complies(comply) with the relevant standard(s), the improperly issued CB Test Certificate is cancelled and replaced by a new CB Test Certificate.

3.6 All Applicants for products being evaluated in that (those) standard(s)/product category shall be notified by the Infringing NCB that they cannot complete any CB Test Report(s) and CB Test Certificate(s) underway and advise them to seek another NCB for this purpose. Any monetary exchange for the work in progress shall be refunded.

2.4 **违规组织**还应当在 30 天内审查其记录，并将其他有可能使用同一未经授权的实验室而不当颁发的所有 CB 测试证书向 IECEE 秘书处申报。

2.5 在 IECEE 秘书处发出的最初通知后的六十日内，**违规组织**应对上述申报的 CB 测试证书进行验证，验证费用由违规组织承担。

2.6 如果**违规组织**没有显示适当的意愿来解决该问题，IECEE 秘书将通知违规的 NCB，取消受到影响的 CB 测试证书，并且该机构颁发这个（或者这些）标准和产品类别的 CB 测试证书的授权将被暂停一定时期。

2.7 **违规组织在任何情况下都应当成功通过一次现场复评审来维持他们在 IECEE 内运作的资格。**

3. 二次违规（在第一次违规成功解决后）

3.1 秘书将通知**违规组织**其在 IECEE 内与相关标准/产品类别有关的授权被暂停。违规组织必须成功通过一次现场复评审来恢复他们在相关范围内被接受的地位。

3.2 IECEE 秘书处将通知有关成员机构，违规 NCB 有关标准/产品类别在 IECEE 内的运行权限被暂停。

3.3 因不当颁发的 CB 测试证书而受到影响的产品将在 30 天内由其他 NCB 予以验证。申请人可选择由哪家 NCB 来验证。所产生的费用由**违规组织**支付。

3.4 如果上述产品被判定不符合相关的标准，**违规组织**和申请人必须在 10 个工作日内共同制定一个工作计划，以使该产品符合要求，并立即通知 IECEE 秘书处。

3.5 如果上述产品被判定符合相关的标准，那么不当颁发的 CB 测试证书将被取消，并由新的 CB 测试证书取代。

3.6 违规 NCB 须通知所有涉及相关标准/产品类别的产品的申请人，任何进行中的 CB 测试报告和 CB 测试证书都无法完成，并建议申请人向其他 NCB 申请。违规组织必须退还申请人在该次申请中已支付的费用。

3.7 The **Infringing Organization** shall successfully undergo an on-site re-assessment within 3 months to include all Product Categories for which the Infringing NCB is accepted for any further infringement of the IECEE Rules.

3.8 The **Infringing Organization** may also be suspended by the IECEE Secretary from operating in the IECEE for other related product categories pending the re-assessment results. The suspension shall be no less than 6 months.

3.9 Any additional identified product(s) affected by improperly issued CB Test Certificates shall be validated by another NCB as chosen by the Applicant at the expense of the Infringing NCB within 30 days of the original notification by the IECEE Secretary. If it is determined that the product(s) complies(comply) with the relevant standard(s), the improperly issued CB Test Certificate is cancelled and replaced by a new CB Test Certificate.

3.10 If it is determined that the product(s) does(do) not comply with the relevant standard(s), a plan must be worked out between the **Infringing Organization** and the Applicant within 10 business days to bring the product into compliance and the IECEE Secretary notified at once.

4. THIRD INFRINGEMENT (after successful resolution of the second infringement)

4.1 The **Infringing Organization** will be notified by the IECEE Secretary of its immediate suspension from operating in the IECEE for at least 12 months, after which an application for reinstatement can be submitted to the IECEE Secretariat through the relevant Member Body.

4.2 The relevant Member Body will be notified about the Infringing NCB’s suspension from operating in the IECEE and the term of the suspension. In addition, the IECEE Secretary will notify the Member Body that it is suspended from voting for the same period as the Infringing NCB.

4.3 The product(s) affected by the improperly issued CB Test Certificate shall be validated by another NCB, as chosen by the Applicant, at the expense of the **Infringing Organization** within 30 days.

4.4 If it is determined that the product(s) does(do) not comply with the relevant standard(s), a plan must be worked out between the **Infringing Organization** and the Applicant within 10 business days to bring the product into compliance and the IECEE Secretary notified at once.

4.5 If it is determined that the product(s) complies(comply) with the relevant standard(s), the improperly issued CB Test Certificate is cancelled and replaced by a new CB Test Certificate.

4.6 The undue CB Test Certificate is/are cancelled and replace by a new CB Test Certificate, if validated by an other NCB.

3.7 **违规组织**必须在 3 个月内成功通过一次现场复评审，评审将包括违规 NCB 被 IECEE 接受的所有产品类别，以确认违规组织是否有任何进一步违反 IECEE 规则的行为。

3.8 依据复评审的结果，IECEE 秘书处可暂停**违规组织**在 IECEE 内对于其他产品类别的运行资格。资格暂停将不少于 6 个月。

3.9 任何被认定受到不当颁发的 CB 测试证书影响的其他产品，必须在 IECEE 秘书处发出最初通知后的 30 天内，由申请人选择其他 NCB 进行验证。由此产生的费用将由违规组织承担。如果上述产品被判定符合相关的标准，那么不当颁发的 CB 测试证书将被取消，并由新的 CB 测试证书取代。

3.10 如果上述产品被判定不符合相关的标准，违规组织和申请人必须在 10 个工作日内共同制定一个工作计划，以使该产品符合要求，并立即通知 IECEE 秘书处。

4. 第三次违规（在第二次违规成功解决后）

4.1 IECEE 秘书处将通知违规组织立即停止其在 IECEE 内的运行，暂停将至少持续 12 个月，之后，相关成员机构可向 IECEE 秘书处递交资格恢复申请。

4.2 IECEE 秘书处将通知有关成员机构，违规 NCB 在 IECEE 内的运行权限被暂停及暂停期限。同时，IECEE 秘书处将通知该成员机构，在此时间段内，因违规 NCB 的原因，成员机构被暂停表决权。

4.3 受到不当颁发的 CB 测试证书影响的产品将在 30 天内由其他 NCB 予以验证。申请人可选择由哪家 NCB 来验证。所产生的费用由**违规组织**支付。

4.4 如果上述产品被判定不符合相关的标准，**违规组织**和申请人必须在 10 个工作日内共同制定一个工作计划，以使该产品符合标准，并立即通知 IECEE 秘书处。

4.5 如果上述产品被判定符合相关的标准，那么不当颁发的 CB 测试证书将被取消，并由新的 CB 测试证书取代。

4.6 如果得到其他 NCB 的验证，不当的 CB 测试证书将被取消，并由一份新的 CB 测试证书取代。

4.7 All Applicants for products being evaluated for every product category shall be notified by the **Infringing NCB** that they cannot complete any CB Test Reports and CB Test Certificates underway and advise them to seek another NCB for this purpose. Any monetary exchange for the work in progress shall be refunded.

4.7 **违规 NCB** 须通知所有涉及每个产品类别的产品的申请人，任何进行中的 CB 测试报告和 CB 测试证书都无法完成，并建议申请人向其他 NCB 申请。违规组织必须退还申请人在该次申请中已支付的费用。

EXTRACTED FROM THE BASIC RULES IECEE 01

10 Board of Appeal

10.1 The responsibilities of the Board of Appeal are

a) to recommend a solution to any dispute referred to it with regard to the application of these basic rules, and;

b) to recommend actions to be taken against NCBs and CBTLs on complaints received regarding potential infringements to the Rules that could compromise the credibility of the IECEE Schemes;

c) to report to the CMC, for appropriate action, any observations relating to the technical content of the standards accepted for use in the IECEE and their applications, that has become evident when investigating a dispute.

10.2 The Board of Appeal shall consist of four members with deputies and a Chairman, each of whom shall be associated with an Issuing and Recognizing NCB. They shall be appointed by the CMC, upon nomination by the Member Bodies of the IECEE.

Their term of office shall be three years, provided that they continue to be associated with an Issuing and Recognizing NCB, and they shall be immediately eligible once for re-appointment for a further period of three years.

10.3 The Secretary of the IECEE shall act as the Secretary of the Board of Appeal and shall have no right to vote.

10.4 For considering a case submitted to the Board of Appeal, the Chairman and all four members or their deputies shall be present. A case may be dealt with by correspondence, with the agreement of the parties involved.

10.5 Neither the Chairman of the Board of Appeal, nor the four members or deputies shall serve in a case in which an NCB of their country is involved. When necessary in such an event, a person associated with an Issuing and Recognizing NCB in a country not involved in the case shall be appointed by the Chairman of the IECEE.

10.6 The parties interested shall have the right to be heard by the Board of Appeal.

10.7 Decisions of the Board of Appeal about its recommendations shall be taken by a simple majority of the four members. If the votes are equally divided, the Chairman shall decide upon the action to be taken.

10.8 If a recommendation from the Board of Appeal is not followed, either party may submit the case to the CMC for appropriate action.

10.9 The procedure for the Board of Appeal is given in ANNEX B.

摘自基本规则 IECEE 01

10　申诉委员会

10.1　申诉委员的职责是：

a）对涉及本基本规则有关应用的纠纷提出解决方法的建议；

b）对于收到的可能对 IECEE 信誉造成影响的潜在违规行为的抱怨，提出针对 NCBs 和 CBTLs 的处理意见；

c）调查争议时发现的任何明显涉及到 IECEE 采用标准的技术内容及其应用的问题，都应向 CMC 报告，以便采取适当措施。

10.2　申诉委员会将由四名成员及其代理及主席组成。他们都应是与发证和认证 NCB 有关的人员，由 IECEE 的成员机构提名，CMC 任命。

他们的任期为三年，只要他们继续保持与一个发证和认证 NCB 的关系，则有资格再连任一届，任期仍为三年。

10.3　IECEE 的秘书兼任申诉委员会的秘书，但无表决权。

10.4　申诉委员会在研究处理申诉事件时，主席和所有四名成员或其代理均应出席会议，经有关各方同意，也可采取通信的方式来处理。

10.5　不论是申诉委员会的主席还是四名成员或其代理，都不得参与处理涉及其本国中的一个 NCB 的申诉事件。此时如有必要，应由 IECEE 主席任命与此无关的国家中的一个发证和认证 NCB 的人员参与处理该事件。

10.6　各利益相关方有权向申诉委员会做出陈述。

10.7　申诉委员会关于其建议的决定，应根据四位成员表决的多数做出，如果表决结果票数相等，将由主席决定应采取何行动。

10.8　如果申诉委员会的建议没有得到遵守，双方均可以将此事提交给 CMC，以便采取适当的行动。

10.9　申诉委员会的程序见附录 B。

ANNEX B
(normative)

Procedure for the Board of Appeal

B.1 An applicant, a Recognizing or Issuing and Recognizing NCB or a Member Body of the IECEE shall have the right to submit an appeal to the Board of Appeal.

B.2 When an applicant wishes to appeal against a decision taken by an NCB about a matter with which this applicant is concerned, the applicant shall first appeal according to the appeal procedure of the NCB concerned, when that procedure is applicable.

If the applicant is not satisfied with the outcome of the appeal at national level and the applicant thinks that the decision is against the Rules of the IECEE, or if the national appeal procedure is not applicable, the applicant may submit an appeal in writing to the Secretary of the IECEE within one month after having been informed of the decision, setting out all reasons for the appeal.

B.3 When one of the parties mentioned in B.1 wishes to submit an appeal, it shall do so in writing to the Secretary of the IECEE, within one month after having concluded that it cannot come to an agreement, setting out its reasons in full.

B.4 In order to consider a case, the Board of Appeal should normally meet in conjunction with a meeting of the CMC. The Board of Appeal may however meet at any time, provided the complainant expresses willingness to pay the travelling and living expenses for the Chairman, the four members and the Secretary of the Board of Appeal for this meeting. These expenses shall be notified in advance to the complainant and shall have been paid to the account of the IECEE before the meeting can take place.

B.5 When the Board of Appeal meets to consider an appeal as per B.3, the following information shall be available:
a) the appeal;
b) the text of all correspondence between the parties and with the Secretary of the IECEE that is essential for the appeal;
c) Extracts for the documented evidence that have been provided to the Secretary of the IECEE

NOTE: documented evidence comprises but is not limited to: infringement cases, extracts from the relevant reports on testing, photographs of the equipment or a specimen of it, drawings, circuit diagrams, instruction handbooks, etc., as necessary

Normally, these documents should be circulated at least four weeks before the meeting by the Secretary of the IECEE to the Chairman and the four members of the Board of Appeal, and their deputies when they will serve on the case. Copies of all documents shall also be sent to the parties.

附录 B
（规范性的）

申诉委员会程序

B.1　申请人、认可 NCB、颁发和认可 NCB 或 IECEE 的成员机构都有权向申诉委员会提出申诉。

B.2　当申请人不同意 NCB 做出的该申请人有关事务的决定需要提出申诉时，如有关 NCB 的申诉程序适用，申请人应首先按照 NCB 的程序提出申诉。

如果申请人对国家一级的申诉结果不满意，并认为该决定违反了 IECEE 的规则时，或者当该国家级的申诉程序不适用时，申请人可以在收到该决定通知的一个月内，向 IECEE 秘书处提出书面申诉，并陈述申诉的全部理由。

B.3　当 B.1 提到的任一方有意提出申诉时，应在确认无法达成协议后的一个月内向 IECEE 秘书提交书面材料，并陈述全部理由。

B.4　为研究处理投诉事件，申诉委员会的会议一般应与 CMC 会议一起举行。但如果投诉人表示愿意支付申诉委员会主席、四名成员及秘书为举行会议所需的差旅费和生活费用，申诉委员会可以随时召开会议。应事先将这些费用的数额通知投诉人，并应在会议举行前支付到 IECEE 账户。

B.5　当申诉委员会按 B.3 项研究处理申诉事件时，应得到下述资料：

a）申诉书；

b）申诉所必要的有关各方和他们与 IECEE 秘书之间的所有通信文本；

c）已提交给 IECEE 秘书的书面证据的摘要。

注：书面证据的组成应包括但不限于：违规案例、摘录的有关测试报告、设备或样品的照片、图纸、电路、使用手册等。

通常这些文件应至迟在会前四周由 IECEE 秘书分发给申诉委员会的主席和四名成员以及他们将参与此次申诉的代理。所有文件的副本也应送到有关申诉的各方。

B.6 When the parties have agreed that the matter may be dealt with by correspondence, clause B.5 also applies. The complainant shall have expressed its willingness to pay the costs, if any.

The Chairman of the Board of Appeal may then propose a solution for consideration by the members of the Board of Appeal. It is the duty of the Secretary of the IECEE to assist the members and the parties.

When the decision is taken by correspondence, notes or minutes relevant to the decision shall be written.

B.7 The Board of Appeal shall deal with the case confidentially.

B.8 The parties involved each have the right to call an expert to advise the Board of Appeal on matters relevant to the case.

B.9 During the adjudication of the case, only the Chairman, the four members or their deputies and the Secretary of the Board of Appeal shall be present.

B.10 The Board of Appeal shall give its recommendations in writing, within one month after the meeting, to the parties, and, if action with regard to standards is needed, to the General Secretary of the IEC.

B.11 The recommendations of the Board of Appeal shall be presented to the CMC at its next meeting in such a way as to safeguard the anonymity of the parties, when that is desired. When an NCB or a Member Body of the IECEE has not followed a recommendation of the Board of Appeal, the CMC shall decide on appropriate steps to be taken.

B.6　当各方同意以通信的方式处理该事件时，B.5 也适用。投诉人应事先表示愿意支付费用（如有）。

申诉委员会的主席可以提出一个解决办法供申诉委员会的成员们考虑。IECEE 的秘书有责任协助这些成员和有关各方。

当使用通信的方式做出决定时，有关决定的记录或纪要应形成书面形式。

B.7　申诉委员会应以保密方式处理投诉事件。

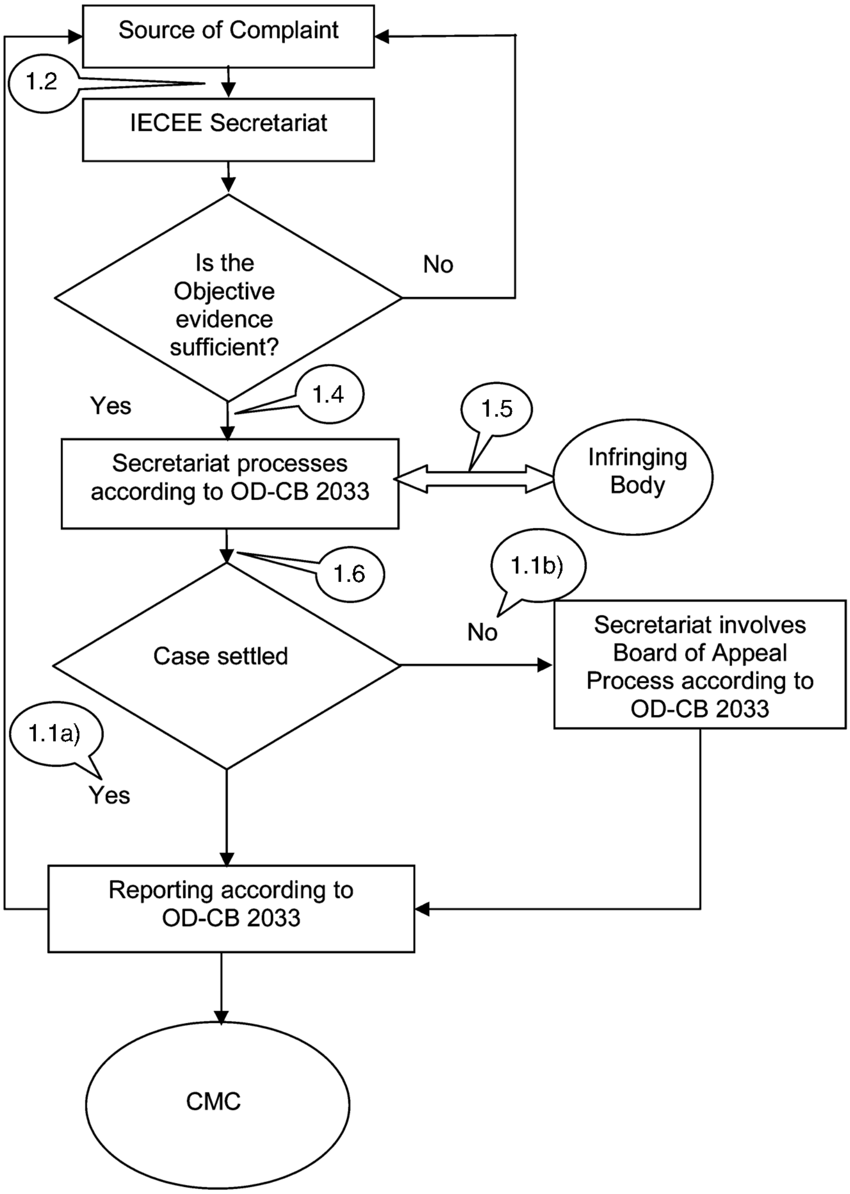
B.8　有关各方有权聘请一位专家就与投诉案件有关的事项为申诉委员会提供咨询。

B.9　在对申诉事件做出仲裁时，只应有申诉委员会的主席、四名成员或他们的代理和申诉委员会的秘书出席。

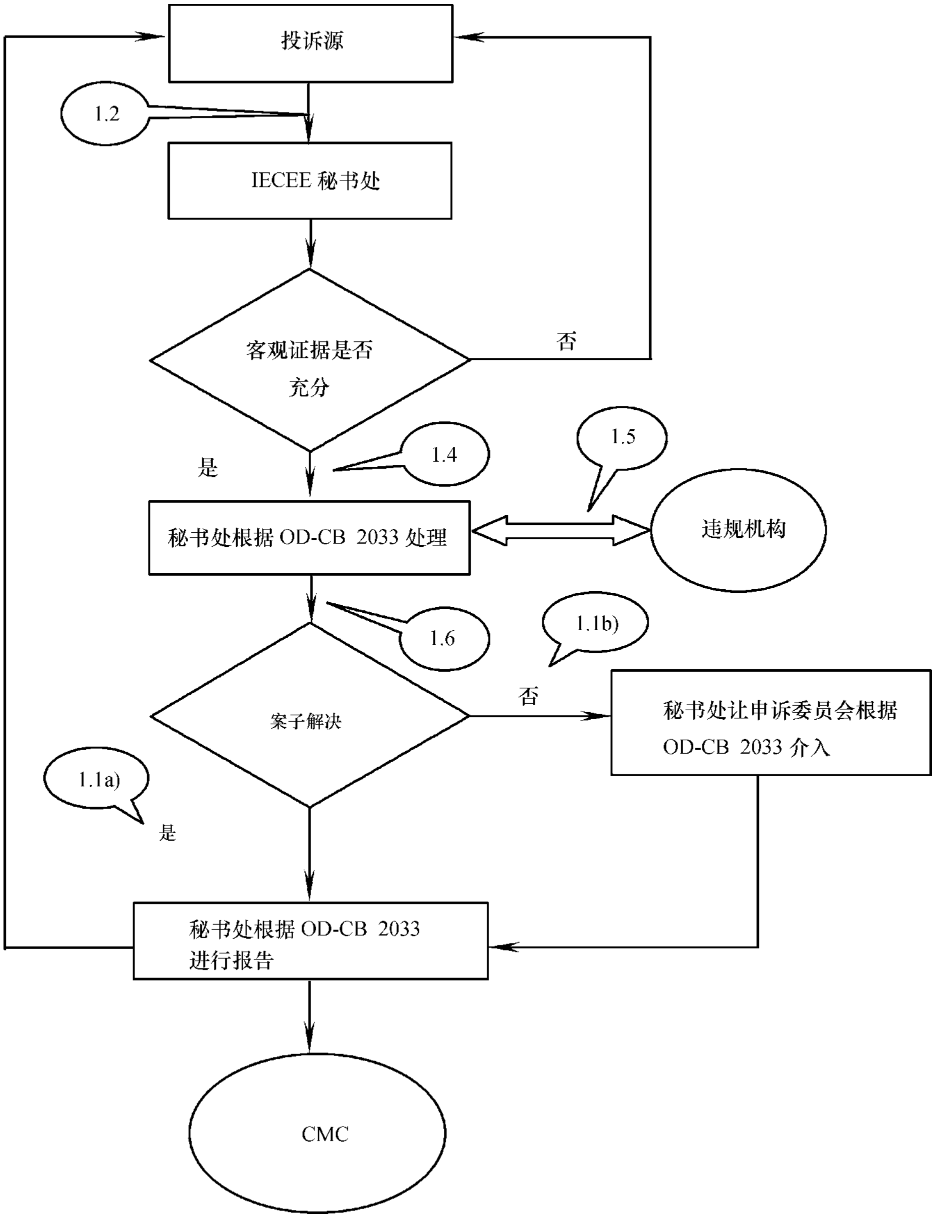
B.10　申诉委员会应在会后一个月内，以书面形式将他们的建议发送给有关各方，如果需要采取涉及到标准的行动，有必要报送 IEC 秘书长。

B.11　申诉委员会的建议应提交下一次 CMC 会议。若有关各方要求，应以保密方式提交。当 NCB 或 IECEE 的成员机构没有遵循申诉委员会的建议时，CMC 应决定采取适当的措施。

Flowchart of the General complaint process



一般投诉过程流程图


投诉源
1.2
IECEE 秘书处
客观证据是否充分
否
是
1.4
1.5
秘书处根据 OD-CB 2033 处理
违规机构
1.6
1.1b)
案子解决
否
秘书处让申诉委员会根据 OD-CB 2033 介入
1.1a)
是
秘书处根据 OD-CB 2033 进行报告
CMC

4. Finances

OD-CB2026-Ed.1.4

2008-10-13

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IECEE 秘书处,3,rue de varemb，日内瓦　瑞士，电话传真：+41 22 919 0300, 电子邮件 :pro@iec.ch

1 ANNUAL DUES

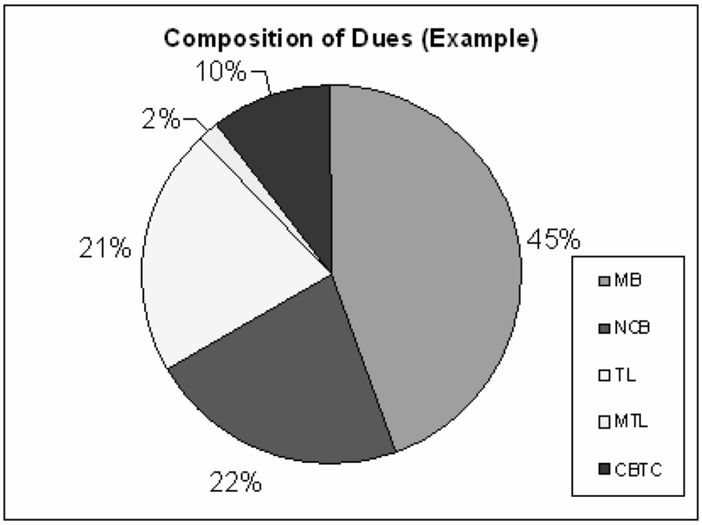
Invoices are issued by the IECEE Secretariat on January of each year and forwarded to the IECEE Member Bodies.
IECEE Member Bodies are requested to settle their annual dues by March 31st of the same year at the IECEE account.

Note 1: In some organisations the fiscal year is such that the settlement is waved later in the first half of the current year. These exceptions are permitted upon written request.

Calculation method for the annual dues:

The total of the annual dues will be proposed and endorsed at the annual CMC Meeting and submitted to CAB for formal Approval.

- Member Bodies are subjected to a flat Annual Dues (2000 CHF).
- The dues for a NCB depend on the number of its CBTLs, MTLs and issued CBTCs.
- Approximately 40% of the total Annual Dues are based on the number of participating NCBs/CBTLs in the Scheme. The weight ratio NCBs/CBTLs in the calculation is set to 4:1.
- 2% of the total Annual Dues are based on the number of MTLs (all types of MTLs).
- 10% of the Annual Dues are based on the number of issued CBTCs of the NCBs in the year prior of the calculation.



The final calculation for the National Dues will be made by the end of December seeing that among the factors of the calculation there are the number of CBTLs and MTLs of an NCB.

1. 年费

IECEE 秘书处每年一月开具发票并转发至各 IECEE 成员机构。

IECEE 成员机构必须在同年的 3 月 31 日前向 IECEE 的账户支付年费。

注 1：某些机构的财政年度设置使其付款推迟至上半年的晚些时候，这些例外情况可通过书面请求获得准许。

年费的计算方法：

年费的总额在 CMC（IECEE 认证管理委员会）会议上提议并批准，然后提交到 CAB（IEC 合格评定局）正式批准。

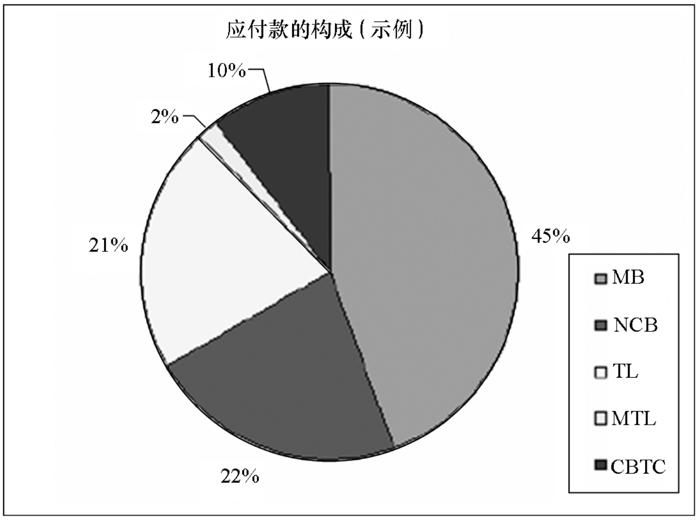
— 成员机构应支付一笔固定的年费（2000 瑞士法郎）。

— NCB（国家认证机构）的应付款额取决于它的 CBTLs（CB 测试实验室）、MTL（制造商测试实验室）和 CBTCs（CB 测试证书）的数量。

— 年费的大约 40％是以体系中参与的 NCB/CBTL 的数量为基础的。计算方法中的 NCBs/CBTLs 的权重比率设为 4∶1。

— 年费的 2％是以 MTL 的数量为基础的（各种类型的 MTLs）。

— 年费的 10％是以进行计算的前一年各 NCB 颁发的 CB 测试证书的数量为基础的。



由于涉及各 NCB 的 CBTL 和 MTLs 的数量等因素，各国年费的最终计算将在 12 月底完成。

2. APPLICATION FEES

An application fee shall be paid by new Member bodies, NCBs and CBTLs applying to join one of the Schemes of the IECEE and by already recognised NCBs and CBTLs applying for extension of scope, in order to cover the administrative work generated by the application.
The following Application fees shall be paid:

- For Membership in the IECEE: CHF 3'000 per Member country
- For participation in one of the Schemes: CHF 1'000 per NCB and CHF 1'000 per CBTL
- For extension of scope: CHF 1'000 per NCB and CHF 1'000 per CBTL when the extension of scope is for a new product category/series
- CHF 500 for each extension of scope per NCB and CHF 500 per CBTL when the extension of scope is for a new part-2 in a currently operated series/product category.
- For transfer of responsible NCB CHF 1'000 per CBTL being transferred
- For transfer of responsible Main CBTL CHF 1'000 per ACTL being transferred
- For re-location of a CBTL CHF 1'000 per CBTL

Invoices are issued by the IECEE Secretariat upon notification of provisional acceptance of the applications and forwarded to the relevant NCBs even if the application concerns CBTL(s).
NCBs are requested to settle the application fees 30 days after receipt of the relevant invoice to the IECEE account:

Note 1: The application and related administrative or peer assessment process is contingent upon the settlement of the application fees.

3. PEER ASSESSMENTS FEES

Peer Assessment activities shall be invoiced by the Organisations (NCB or CBTL) employing the Assessors and shall be sent to:
a) The NCB when the latter is being assessed
b) The NCB responsible of the CBTL when the latter is being assessed.

Invoice basis:
Assessment Fees Lead Assessor 1250 CHF per day(s)
Assessment Fees Expert Assessor 1000 CHF per day(s)
Traveling Time Lead Assessor 1250 CHF per journey
Traveling *Time Expert Assessor 1000 CHF per journey
Air Ticket class shall be based on full "Y" class fare.
Please refer to OP-ACAG 005 - Costs Related to Peer Assessment and make sure that you provide your travel cost estimate to the organization to be assessed in due time before the on-site assessment.

*Traveling time is charged for at the maximum of one assessor day for each journey.

2. 申请费

申请加入某一个 IECEE 体系的新的成员机构 NCB 和 CBTL 以及申请扩项的已被接受的 NCB 和 CBTL 都需要支付一笔申请费，这笔费用被用于申请过程中必须的行政工作。

必须支付以下的申请费：

- IECEE 成员资格：每个成员国 3000 瑞士法郎。
- 参加某一个体系：每个 NCB 1000 瑞士法郎，每个 CBTL 1000 瑞士法郎。
- 扩项：当申请新的产品类别/系列时，每个 NCB 1000 瑞士法郎，每个 CBTL 1000 瑞士法郎。
- 在当前的系列/产品类别内申请扩项，每个 NCB 500 瑞士法郎，每个 CBTL 500 瑞士法郎。
- 更换责任 NCB，每个 CBTL 1000 瑞士法郎。
- 更换负责的主 CBTL，每个 ACTL 1000 瑞士法郎。
- CBTL 迁址：每个 CBTL 1000 瑞士法郎。

IECEE 秘书处在发出暂时受理申请的通知时开具发票并交相关 NCB（即使是 CBTL 申请）。

NCB 应在收到发票 30 天内向 IECEE 账户支付申请费。

注 1：申请以及相关的行政或同行评审程序的进行取决于申请费用的结算。

3. 同行评审费

同行评审活动由雇用评审员的组织（NCB 或 CBTL）开具发票并发送至：

a）接受评审的 NCB；

b）当 CBTL 接受评审时对其负责的 NCB。

发票依据：

评审组长评审费为每天 1250 瑞士法郎；

专家评审员评审费为每天 1000 瑞士法郎；

路途时间评审组长为每次行程 1250 瑞士法郎；

路途时间专家评审员为每次行程 1000 瑞士法郎；

飞机票等级必须以 Y 级为基础。

请参考 OP-ACAG005 与同行评审相关的费用，并切记在现场评审之前适时将预计差旅费告知接受评审的机构。

* 路途时间最多按每次行程一个评审日收费。

Please refer to OP-ACAG 005, Estimated expenses and fees form shall be:
a. Filled in by each assessor in due time before the on-site assessment.
b. Sent to the organization to be assessed (with copy to the IECEE Secretariat).
c. Approved by the Assessed Organisation prior to the on-site assessment (with copy to the IECEE Secretariat).

4. SURCHARGE

Requirements for the surcharges are determined in sub-clause 6.1.4 in the Rules of Procedure, Publication IECEE 02:
"An applicant in a country with no Member Body of the IECEE and an applicant acting on behalf of a manufacturer in such a country shall pay a contribution to the costs of the IECEE in the form of a surcharge for each CB Test Certificate issued, the amount to be decided by the CMC. The surcharge is to be collected by the NCB handling the application, and remitted to the IECEE account."

The following table shows the different combination of Applicant "A", Manufacturer "M" and Factory "F" that are subjected to surcharge. (150 CHF each, as of 2009 01 01 100CHF each).
Implementation of this table is effective by January 1st 2003.

In a member Country	In a non-member Country	Surcharge
AMF	None	no
A M F	F	yes
A M F	M	yes
A M F	M F	yes
AM	M	yes
AM	MF	yes
AM	F	yes
AF	M F	yes
AF	M	yes
AF	F	yes
MF	A M F	yes
MF	A M	yes
MF	A F	yes
MF	A	yes
F	A M F	yes
F	A M	yes
F	A F	yes

The IECEE Secretariat issues invoices once a year in conjunction with the consolidation of the statistics related to the CB Test Certificates issued by the NCBs.
NCBs are requested to settle the surcharge fees 30 days after receipt of the relevant invoice to the IECEE account.

请参考 OP-ACAG005，预算和费用的格式必须：

a. 在现场评审之前由每个评审员填写；

b. 发送至将要接受评审的组织（抄送 IECEE 秘书处）；

c. 在现场评审之前得到被评审组织的同意（抄送 IECEE 秘书处）。

4. 附加费

附加费的要求在 IECEE 02 程序规则 6.1.4 条款中明确规定。

“来自无 IECEE 成员机构的国家的申请人，以及代表在这样的国家中制造商的申请人，必须以附加费的形式为每份已颁发的 CB 测试证书向 IECEE 支付相关费用，付款数额由 CMC 决定。这笔附加费由受理申请的 NCB 收取，并汇款至 IECEE 的账户。

以下的表格为 申请人“A”，制造商“M”和生产厂“F”需要支付附加费的不同组合（每张证书 150 瑞士法郎，2009 年 1 月 1 日起为每张证书 100 瑞士法郎）。这个表格的实施从 2003 年 1 月起开始有效。

位于成员国	位于非成员国	附加费
AMF	无	不需要
AMF	F	需要
AMF	M	需要
AMF	MF	需要
AM	M	需要
AM	MF	需要
AM	F	需要
AF	MF	需要
AF	M	需要
AF	F	需要
MF	AMF	需要
MF	AM	需要
MF	AF	需要
MF	A	需要
F	AMF	需要
F	AM	需要
F	AF	需要

IECEE 秘书处每年开具一次发票（附 NCBs 颁发的 CB 测试证书相关的统计信息），NCB 必须在收到相关发票后的 30 天内向 IECEE 账户支付这笔附加费。

Please note that products/equipment/components falling under multi Brand Names/Trade Marks must be handled in such a way that your Certification Department issues one Brand Name per CB Test Certificate.

For those cases where the Surcharge applies, please note that the surcharge would also apply for each CB Test Certificate issued in line with the general CMC decision regarding the application of surcharges.

EXAMPLE:

PRODUCT: Point of Sale terminal Model 8888 and 8889 3 CB Test Certificates :	
US/9054C/UL Brand Name IBM =>	1 Surcharge for IBM
US/9055C/UL Brand Name DELL =>	1 Surcharge for DELL
US/9056C/UL Brand Name HP =>	1 Surcharge for HP

5. TRF COMPENSATION

The CMC may decide to financially compensate TRF originators based on recommendation of the Secretary tabled at the IECEE-CMC meeting each year.
The amount of compensation may vary depending on the results of the accounts of the financial year.
Once the Financial compensation is approved by the CMC, the relevant NCBs will have to send an invoice corresponding to the agreed compensation amount to the IECEE Secretariat.
The IECEE Secretary will than settle the NCBs accounts by transferring the amount to the accounts as indicated by the NCBs.

The amount of compensation is decided by the Secretary and based on the following factors:
1000 CHF per each TRF made from scratch, i.e. New Standard
500 CHF per each TRF based on a new edition of an existing TRF/Standard
200 CHF per each TRF updated against a significant Amendment of the standard

6. CTL PROFICIENCY TESTING PROGRAMS

The costs related to the participation of the CBTLs at the relevant Proficiency Testing Program is settled on-line during the registration of the relevant CBTL through the PTP Provider's WEB, IFM Australia, under the following URL: http://www.ifmqs.com.au/order%20form_ifm_proficiency_testing_programs.htm

注意：产品/设备/零部件牵涉到多个品牌/商标时，认证部门必须以一个品牌对应一份CB测试证书的原则处理。

对于那些需要支付附加费的，请注意按照附加费应用的CMC决议，每一份CB证书都应支付附加费。

示例

产品：销售点终端机 型号：8888 和 8889 3 份 CB 测试证书：	
US/9054C/UL Brand Name IBM=>	IBM 需支付一笔附加费
US/9055C/UL Brand Name DELL=>	DELL 需支付一笔附加费
US/9056C/UL Brand Name HP=>	HP 需支付一笔附加费

5. 编写 TRF 的补偿

以IECEE-CMC年会上秘书长提出的建议为基础，CMC可以决定对测试报告格式起草人提供财政上的补偿。

补偿的数额可根据财政年的账目情况调整。当CMC批准了财政补偿后，相关的NCBs必须向IECEE秘书处提交一份和已获批准的补偿数额相当的发票。

IECEE 秘书处将以 NCBs 指明的账户付清账目。

补偿的数额由秘书长根据以下因素决定：

每份新起草的测试报告格式为1000瑞士法郎，即：新标准；

每份以现存的测试报告格式/标准的新版本为基础的测试报告格式为500瑞士法郎；

每份针对标准的重要修订件更新的测试报告格式为200瑞士法郎。

6. CTL 能力验证计划

与CBTL参加能力验证计划相关的费用问题，在CBTLs通过PTP提供者的网站注册过程中确定，PTP提供者，澳大利亚IFM网址见下方URL：

http://www.ifmqs.com.au/order%20form_ifm_proficiency_testing_programs.htm

7. CTL WORKSHOPS

The invoice related to the CTL Workshops provided to the participating CBTLs will be sent by the PTP provider, IFM Australia, to the relevant CBTLs or to the responsible NCB if so agreed with IFM Australia

8. CONDITIONS FOR PARTICIPATION FROM OFFICERS IN EVENTS and FUNDING FROM OUTSIDE

The participation as a speaker of the Executive Secretary and the Officers in events such as Conferences, Seminars, Workshops, Forum of discussion, etc... shall be compatible with promoting the IEC and IECEE Schemes and operations and so that IECEE is not be subjected to any expenses that is not directly connected with IECEE activities and promotion.

Funding from outside Organisations shall be carefully considered in order to maintain the IECEE's independence and impartiality and to prevent the IECEE from being subjected to any undue pressure.

9. IECEE account:

Bank: UBS SA Geneva
Case postale 2600
CH-1211 Geneva 2
Account N°: 240-C0800907.4
Swift: UBSWCHZH12A
IBAN :CH46 0024 0240 C080 0907 4

7. CTL 研讨会

与 CTL 研讨会相关的发票，如果 PTP 提供者澳大利亚 IFM 同意，将由其发送到参加研讨会的 CBTLs 或是有关的 NCB。

8. 官员参加活动和外界资助的条件

执行秘书长或者官员作为发言人参加以下活动，如大会、研讨会、讨论会、论坛讨论等，必须与 IEC 和 IECEE 体系和其运作的推广相得益彰，因此 IECEE 就不需要支付那些与 IECEE 的活动和推广不直接相关的费用。

接受外界组织资助必须深思熟虑，从而保证 IECEE 的独立性和公正性并免于承受不应有的外界压力。

9. IECEE 账户：

银行：UBS SA Geneva
Case postale 2600
CH-1211 Geneva 2
账号：240-C0800907.4
Swift：UBSWCHZH12A
IBAN：CH46 0024 0240 C080 0907 4

第二章　IECEE-CB 体系实验室申请及评审相关文件

IECEE

CB-SCHEME **OD-CB2007-Ed.2.7**

OPERATIONAL & RULING DOCUMENTS

5. Documentation for applications

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IECEE

CB - 体系 **OD-CB2007-Ed.2.7**

操作和规则文件

5. 申 请 文 件

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IECEE 秘书处 ,3,rue de varemb,Geneva Switzerland，电话传真：+41 22 919 0300, 电子邮件 :pro@iec.ch

INTRODUCTION

This Operational Document provides checklists of the material to be provided to the IECEE Secretariat, in electronic compatible format, when NCBs/CBTLs are seeking IECEE Membership, scope extension and further subjected to Re-assessments.

This Operational Document also provides, under Annex 1, the list of documents that shall be made available by the NCBs/CBTLs to the Assessment Team during the on-site assessment.

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简　　介

NCB/CBTL 在寻求 IECEE 成员资格、扩项和接受复评审时，需要向 IECEE 秘书处提供电子版申请材料，本操作文件提供了所需的申请材料清单。

本操作文件的附录 1 还提供了 NCBs/CBTLs 需要在现场评审时，准备提交给评审组的文件清单。

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Part 1
New candidate NCB and associated CBTL/ACTL(S)
Documentation to be provided prior to the assignment of the Assessment Team

1. Application in writing from the Member Body of the country where the NCB is located.	☐
2. Application in writing from the candidate NCB	☐
3. Application Form, Document OD-CB2010, for candidate NCBs	☐
4. Application Form, Document OD-CB2011, for candidate CBTL/ACTLs	☐
5. Declaration of Certification and Testing Experience, Annex 1B of OD-CB2004 & OD-CB2005 (Annex 1C for ACTLs)	☐
6. List of Testing Equipment relevant to the scope for which the Recognition is sought OD-CB2024	☐
7. Check List for NCBs OD-CB2016	☐
8. Check List for CBTL/ACTLs OD-CB2017	☐
9. Objective evidence that the candidate CBTL/ACTL	
- is an integral part, such as a department, division, branch or subsidiary of the relevant NCB, or	☐
- is under the complete technical and legal control of the relevant NCB, or	☐
- a written agreement clearly outlining the commitment, duty and responsibility of both the candidate CBTL and the relevant NCB to follow IECEE Rules.	☐
10. Organization Charts of the candidate NCB/CBTL/ACTL(s)	☐
11. If the candidate NCB/CBTL/ACTL(s) are accredited, Accreditation Certificate(s) and related scope. If the candidate NCB/CBTL(s) are not accredited, complete and return Annex 2 of OD-CB2007.	☐
12. When applicable, a list of **National Differences** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
13. When applicable, a list of **Regulatory requirements** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
14. OD-CB2004 and OD-CB2005 duly “pre-filled in” to the best extent possible Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL/ACTL precompletes these ODs with as much information as possible by using the same (or compatible) virus free software	☐

第 1 部分
新候选 NCB 和相关 CBTL/ACTL（s）

文件需在指定评审组前提交

1. NCB 所在国成员机构的书面申请信	☐
2. 候选 NCB 书面申请信	☐
3. 候选 NCB 申请书表格：OD-CB2010	☐
4. 候选 CBTL/ACTL 申请书表格：OD-CB2011	☐
5. 认证和测试经历声明：OD-CB2004、OD-CB2005 附录 1B（ACTL 则使用附录 1C）	☐
6. 与申请范围相关的测试设备清单：OD-CB2024	☐
7. NCB 的核查表：OD-CB2016	☐
8. CBTL/ACTLs 的核查表：OD-CB2017	☐
9. 可证明候选 CBTL/ACTL 满足以下条件的客观证明文件： — 是相关 NCB 的一个组成部分，如：作为 NCB 的一个部门、分支机构或子机构等；或 — 完全处于相关 NCB 的技术和法律控制之下；或 — 有书面协议清楚概括了候选 CBTL 与相关 NCB 之间的义务、责任和职责，以遵循 IECEE 规则	☐
10. 候选 NCB/CBTL/ACTL 组织结构图	☐
11. 已认可的 NCB/CBTL/ACTL 提交认可证书和认可范围；未认可的 NCB/CBTL/ACTL 填交完整的 OD-CB2007 附录 2	☐
12. 适用时，提交标准的**国家差异**列表，这在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
13. 适用时，提交**法规要求**列表，这在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
14. 尽可能预填 OD-CB2004 和 OD-CB2005 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB/CBTL/ACTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	☐

Part 2
New candidate NCB only
Documentation to be provided prior to the assignment of the Assessment Team

1. Application in writing from the Member Body of the country where the NCB is located.	☐
2. Application in writing from the candidate NCB	☐
3. Application Form, Document OD-CB2010, for candidate NCBs	☐
4. Declaration of Certification Experience, Annex 1B of OD-CB2004	☐
5. Check List for NCBs applying for the first time, OD-CB2016	☐
6. If the candidate NCB is accredited, Accreditation Certificate(s) and related scope. If the candidate NCB is not accredited, complete and return Annex 2 of OD-CB2007.	☐
7. Organization Charts of the candidate NCB	☐
8. When applicable, a list of **National Differences** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
9. When applicable, a list of **Regulatory requirements** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
10. OD-CB2004 duly “pre-filled in” to the best extent possible. Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB pre-completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐

第 2 部分
仅新候选 NCB

文件需在指定评审组前提交

1. 候选 NCB 所在国成员机构书面申请信	☐
2. 候选 NCB 书面申请信	☐
3. 候选 NCB 申请书表格：OD-CB2010	☐
4. 认证经历声明：OD-CB2004 附录 1B	☐
5. 首次申请的 NCB 提交核查表：OD-CB2016	☐
6. 已认可的 NCB 提交认可证书和认可范围；未认可的 NCB 填交 OD-CB2007 附录 2	☐
7. 候选 NCB 组织结构图	☐
8. 适用时，提交标准的**国家差异**列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
9. 适用时，提交**法规要求**列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
10. 尽可能预填 OD-CB2004 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	☐

Part 3
New candidate CBTL/ACTL only
Documentation to be provided prior to the assignment of the Assessment Team

1. Application in writing from the Member Body of the country where the NCB is located.	☐
2. Application in writing from the candidate NCB which is copied to the Member Body of the country where the NCB is located	☐
3. Application Form, Document OD-CB2011, for candidate CBTL/ACTLs	☐
4. Declaration of Testing Experience, Annex 1B of OD-CB2005/Annex 1C of OD-CB2005	☐
5. List of Testing Equipment relevant to the scope for which the Recognition is sought OD-CB2024	☐
6. Check List OD-CB2017	☐
7. Objective evidence that the candidate CBTL/ACTL	
• is an integral part, such as a department, division, branch or subsidiary of the relevant NCB, or	☐
• is under the complete technical and legal control of the relevant NCB, or	☐
• a written agreement clearly outlining the commitment, duty and responsibility of both the candidate CBTL/ACTL and the relevant NCB to follow IECEE Rules.	☐
8. Organization Charts of the candidate CBTL/ACTL	☐
9. If the candidate CBTL/ACTL is accredited, Accreditation Certificate(s) and related scope. If the candidate CBTL is not accredited, complete and return Annex 2 of OD-CB2007.	☐
10. OD-CB2005 duly “pre-filled in” to the best extent possible. Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed CBTL/ACTL pre–completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐

第 3 部分
仅新候选 CBTL/ACTL

文件需在指定评审组前提交

1. NCB 所在国成员机构书面申请信	☐
2. NCB 书面申请信，抄送 NCB 所在国的成员机构	☐
3. 候选 CBTL/ACTL 申请书表格：OD-CB2011	☐
4. 认证和测试经历声明：OD-CB2005 附录 1B/附录 1C	☐
5. 与申请范围相关的测试设备清单：OD-CB2024	☐
6. 核查表：OD-CB2017	☐
7. 可证明候选 CBTL/ACTL 满足以下条件的客观证明文件： • 是相关 NCB 的一个组成部分，如作为 NCB 的一个部门、分支机构或子机构等；或 • 完全处于相关 NCB 的技术和法律控制之下；或 • 有书面协议清楚概括了候选 CBTL/ACTL 与相关 NCB 之间的义务、责任和职责，以遵循 IECEE 规则	☐
8. 候选 NCB/CBTL/ACTL 组织结构图	☐
9. 已认可的 NCB/CBTL/ACTL 提交认可证书和认可范围；未认可的 NCB/CBTL/ACTL 填交 OD-CB2007 附录 2	☐
10. 尽可能预填 OD-CB2005 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 CBTL/ACTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	☐

Part 4
NCB/CBTL/ACTL(s) seeking Extension for part two(s) of Standards falling under Product Categories already Recognized within their scope

Documentation to be provided prior to the assignment of the Assessment Team

Should the NCB/CBTL/ACTL request that Scope Extension Assessment take place in conjunction with the Re-assessment, documentation shall be provided 3 months in advance of the set re-assessment date

Documentation to be provided prior to the application being processed

1. Application in writing from the candidate NCB which is copied to the Member Body of the country where the NCB is located Note: Also in the case when the application concerns only and associated CBTL	☐
2. Claim of Capability OD-CB2021 and supporting documentation as checked off in the Claim of Capability	☐

Documentation to be provided upon request by the IECEE Secretariat after examination of the application

3. Declaration of Certification and Testing Experience, Annex 1B/C of OD-CB2004 & OD-CB2005	☐
4. If the candidate NCB/CBTL/ACTL(s) is/are accredited, Accreditation Certificate(s) covering the relevant scope. If the candidate NCB/CBTL/ACTL(s) are not accredited, complete and return Annex 2 of OD-CB2007.	☐
5. When applicable, a list of **National Differences** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
6. When applicable, a list of **Regulatory requirements** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
7. If assessment is necessary, OD-CB2004 and OD-CB2005 duly "pre-filled in" to the best extent possible. Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL/ACTL pre–completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐

第 4 部分

NCB/CBTL/ACTL(s)申请扩展已接受产品类别的第二部分标准

文件需在指定评审组前提交

如果 NCB/CBTL/ACTL 要求扩项评审和复评审同时进行，文件需在确定的复评审日期 3 个月前提交

需在申请受理前提交的文件

1. 候选 NCB 书面申请信，抄送 NCB 所在国成员机构 注：同样适用于申请仅涉及 CBTL 时	□
2. 能力声明：OD-CB2021 及该文件中勾选的支持文件	□

IECEE 秘书处审核申请后可能要求提供的文件

3. 认证和测试经历声明：OD-CB2004 和 OD-CB2005 的附录 1B/C	□
4. 已认可的 NCB/CBTL/ACTL 提交相关认可范围的认可证书；未认可的 NCB/CBTL/ACTL 则填交 OD-CB2007 附录 2	□
5. 适用时，提交标准的国家差异列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	□
6. 适用时，提交法规要求列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	□
7. 如果需进行评审，尽量预填 OD-CB2004 和 OD-CB2005 表格文件 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB/CBTL/ACTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	□

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Part 5
Extension of scope for NCB/CBTL/ACTL(s) for Standards/Product categories not under their Recognized scope

Documentation to be provided prior to the assignment of the Assessment Team

Should the NCB/CBTL/ACTL request that Scope Extension Assessment take place in conjunction with the Re-assessment, documentation shall be provided 3 months in advance of the set re-assessment date

1. Application in writing from the candidate NCB which is copied to the Member Body of the country where the NCB is located	☐
2. Application Form, Document OD-CB2010, for NCBs	☐
3. Application Form, Document OD-CB2011, for CBTL/ACTLs	☐
4. Declaration of Certification and Testing Experience, Annex 1B/C of OD-CB2004 & OD-CB2005	☐
5. List of Testing Equipment relevant to the scope for which the Recognition is sought OD-CB2024	☐
6. If the candidate NCB/CBTL/ACTL(s) is/are accredited, Accreditation Certificate(s) covering the relevant scope. If the candidate NCB/CBTL(s) are not accredited, complete and return Annex 2.	☐
7. When applicable, a list of **National Differences** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
8. When applicable, a list of **Regulatory requirements** for each standard, which will be requested by the responsible NCB when recognizing CB Test Certificates for the purpose of granting its Certification Mark	☐
9. If assessment is necessary, OD-CB2004 duly “pre-filled in” to the best extent possible Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL pre–completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐
10. If assessment is necessary, OD-CB2005 duly “pre-filled in” to the best extent possible Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL/ACTL pre–completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐

第 5 部分

NCB/CBTL/ACTL(s)申请扩展已接受范围外的标准/产品类别

文件需在指定评审组前提交

如果 NCB/CBTL/ACTL 要求扩项评审和复评审同时进行，文件需在确定的复评审日期 3 个月前提交

1. 候选 NCB 书面申请信，抄送 NCB 所在国的成员机构	☐
2. NCB 申请书：OD-CB2010	☐
3. CBTL/ACTL 申请书：OD-CB2011	☐
4. 认证和测试经历声明：OD-CB2004 和 OD-CB2005 的附录 1B/C	☐
5. 与申请范围相关的测试设备清单：OD-CB2024	☐
6. 已认可的 NCB/CBTL/ACTL 提交认可证书和认可范围；未认可的 NCB/CBTL/ACTL 填交附录 2	☐
7. 适用时，提交标准的**国家差异**列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
8. 适用时，提交**法规要求**列表，在责任 NCB 为批准其认证标志而对 CB 证书进行认可时需要	☐
9. 如果需进行评审，尽量预填 OD-CB2004 表格文件 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB/CBTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	☐
10. 如果需进行评审，尽量预填 OD-CB2005 表格文件 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB/CBTL/ACTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	☐

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Part 6

Re-Assessment of NCB and Associated CBTL /ACTLs

Documentation to be provided no later than one month before the re-assessment date

Should the NCB/CBTL/ACTL request that Scope Extension Assessment take place in conjunction with the Re-assessment, documentation shall be provided 3 months in advance of the set re-assessment date

1. Check List for NCBs OD-CB2016 only if changes have been made since the last re-assessment. If no changes occurred since last re-assessment please complete and return Annex 2 of OD-CB2007.	☐
2. Check List for CBTL/ACTLs OD-CB2017 only if changes have been made since the last re-assessment. If no changes occurred since last re-assessment please complete and return Annex 2 of OD-CB2007..	☐
3. If accredited, NCB/CBTL(s), Copy of the Accreditation Certificate(s) and related scope. If the candidate NCB/CBTL(s) are not accredited, complete and return Annex 2 of OD-CB2007..	☐
4. Relevant parts of the *OD-CB2004 and/or OD-CB2005,* duly “pre-filled in” to the best extent possible Note: It is the Role of the Lead Assessor to complete the Assessment Report(s) however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL/ACTL pre–completes these ODs with as much information as possible by using the same (or compatible) virus free software.	☐

第 6 部分
复评审 NCB 及相关的 CBTL/ACTL(s)

文件需在复评审日期一个月前提交

如果 NCB/CBTL/ACTL 要求扩项评审和复评审同时进行，文件需在确定的复评审日期 3 个月前提交

1. 自前次复评审后，有变更的 NCB 提交 OD-CB2016 核查表；无变更的 NCB 填交 OD-CB2007 附录 2	□
2. 自前次复评审后，有变更的 CBTL/ACTL 提交 OD-CB2017 核查表；无变更的填交 OD-CB2007 附录 2	□
3. 已获认可的 NCB/CBTL，提交认可证书和相关认可范围复本；未获认可的 NCB/CBTL，填交 OD-CB2007 附录 2	□
4. 尽可能预填 OD-CB2004 和/或 OD-CB2005 中相关部分的信息 注：虽然评审报告主要由评审组长完成，但为提高效率和节约时间，希望被评审的 NCB/CBTL/ACTL 用尽可能完整的信息，以同类或可兼容的无病毒软件预填 OD 文件	□

Part 7A

Request for Extension of scope for NCB/CBTL/ACTL(s) for new editions/amendments for standards already included within their scope

Documentation to be provided prior to the application being processed

1. Application in writing from the candidate NCB which is copied to the Member Body of the country where the NCB is located	☐
2. Claim of Capability OD-CB2021 and supporting documentation as checked off in the claim of capability	☐

Part 7B

Request for Extension of scope for NCB/CBTL/ACTL(s) for new editions/amendments for standards already included within their scope–FAST TRACK

Documentation to be provided prior to the application being processed

1. Application in writing from the candidate NCB which is copied to the Member Body of the country where the NCB is located	☐
2. Fast Track Extension (OD-CB2042) application form	☐

第 7A 部分
申请扩展已接受范围内标准的新版本/修订件需提交的文件

需在申请受理前提交的文件

1. 候选 NCB 书面申请信，抄送 NCB 所在国的成员机构	□
2. 能力声明 OD-CB2021 及该文件中勾选的支持文件	□

第 7B 部分
NCB 已被接受标准版本后的标准版本，修订件的快速通道扩项

需在申请受理前提交的文件

1. 候选 NCB 书面申请信，抄送 NCB 所在国的成员机构	□
2. 快速通道扩项申请表格：OD-CB2042	□

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Part 8

Transfer of CBTL to a different responsible NCB for one or more Product categories

Documentation to be provided prior to the application being processed

1. Application in writing from the new NCB which is copied to the Member Body of the country where the NCB is located and to the relevant CBTL	☐
2. Information in writing from the current NCB informing that its responsibility over the CBTL will discontinue with a defined date which is copied to the relevant CBTL Note: The contract agreement between the NCB and CBTL must have provision for termination of the contract. If the original NCB for whatever reason will not agree to end the cooperation with the CBTL, the date of termination of the contract will apply. In any case, the CBTL before transferring its activity to a new NCB shall complete all its current projects with the original NCB	☐
3. Objective evidence that the candidate CBTL/ACTL • is an integral part, such as a department, division, branch or subsidiary of the relevant NCB, or • is under the complete technical and legal control of the relevant NCB, or • a written agreement clearly outlining the commitment, duty and responsibility of both the candidate CBTL/ACTL and the relevant NCB to follow IECEE Rules.* * Note: Evidence of procedures for information dissemination between the CBTL and the new NCB and evidence of adequate procedures for the NCB control of the CBTL testing within the scheme shall be included.	☐ ☐ ☐
4. Evidence of an assessment visit to the CBTL on behalf of the new NCB	☐

Upon completion the IECEE Secretariat will acknowledge the changes and notify the parties (NCBs & CBTL) about the new status of the CBTL and an article will be placed on the "What's New" area of the website.-

第 8 部分
将 CBTL 的一种或多种产品类别调整到另一个 NCB 负责

需在申请受理前提交的文件

1. 新 NCB 书面申请信，抄送 NCB 所在国的成员机构和相关 CBTL	□
2. 原 NCB 以书面形式通知其对相关 CBTL 的责任将要终止，并说明终止的确切时间，书面通知抄送相关 CBTL 注：NCB 与 CBTL 之间的合约应规定终止的日期。若原 NCB 以任何理由不同意终止与 CBTL 的合作，终止日期以合约规定为准；任何情况下，在 CBTL 调整到新的 NCB 前应当完成所有现行与原 NCB 的合作项目。	□
3. 可证明候选 CBTL/ACTL 满足以下条件的客观证明文件： • 是相关 NCB 的一个组成部分，如：作为 NCB 的一个部门、分支机构或子机构等；或 • 完全处于相关 NCB 的技术和法律控制之下；或 • 有书面协议清楚地概括了候选 CBTL/ACTL 与相关 NCB 之间的义务、责任和职责，以遵循 IECEE 规则 注：证明文件应包括 CBTL 和新 NCB 间的信息分发规定和 NCB 在体系内控制 CBTL 测试的充分规定	 □ □ □
4. 以新 NCB 的名义对 CBTL 评审访问的证明文件	□

完成调整后，IECEE 秘书处将确认该项调整并通知相关机构（NCB 和 CBTL）有关调整后的 CBTL 新地位，相关文件将挂于 IECEE 网站的“最新通告”栏下。

Annex 1

List of documents to be made available during on-site assessments

TYPICAL DOCUMENTATION TO BE MADE AVAILABLE DURING THE ASSESSMENT OF NCBs

The NCB shall provide (through publications, electronic media or other means), updated at regular intervals, and make available on request by the Lead Assessor, the following:

a) Information about the authority under which the certification body operates;
b) A documented statement of its product certification system, including its rules and procedures for granting, maintaining, extending, suspending and withdrawing certification;
c) Information about the evaluation procedures and the certification process related to each product certification system;
d) A description of the means by which the organization obtains financial support and general information on the fees charged to applicants and to suppliers of certified products;
e) A description of the rights and duties of applicants and suppliers of certified products, including requirements, restrictions or limitations on the use of the certification body's logo and on the ways of referring to the certification granted;
f) Information about procedures for handling complaints, appeals and disputes;
g) A directory of certified products and their suppliers;
h) Agreement/Contract between the NCB and associated CBTL(s)
i) Agreement/Contract between the NCB and associated TMPs, WMTs, SMTs, RMTs
j) Complete certification files of each product category
k) IEC standards as per the scope
l) IECEE-CMC list of current decisions
m) IECEE 01, IECEE 02, IECEE 03 (if applicable), Operational Documents
n) IECEE-CTL Decision Sheets and Operational Procedures
o) C.V. of involved staff
p) List of National Differences
q) List of Regulatory requirements
r) IECEE Training provided to NCB's staff and associated CBTL(S)
s) Quality Manual and other associates procedures (at least the index in English).
t) Impartiality & Confidentiality Policy.

Additional Documentation required for CB-FCS assessments/re-assessments:

a) Information about the Factory Inspection department (however named) capability (if any)

TYPICAL DOCUMENTATION TO BE MADE AVAILABLE DURING THE ASSESSMENT OF CBTL/ACTLs

The CBTL shall provide (through publications, electronic media or other means), update at regular intervals, and make available on request, the following:

a) IEC Standards and related IEC interpretation sheets and CTL Decision Sheets
b) Working instructions, Testing procedures/methods
c) IECEE Blank Test Report Forms related to the scope for which the CBTL has been accepted
d) Testing proficiency experience
e) Calibration records
f) Calibration Services and Calibration Traceability
g) List of defined Testing Equipment/facilities

附录 1
现场评审期间需要准备的文件清单

NCB 评审中需要准备的典型文件

NCB 应以电子媒介或其他形式提供并定期、更新以下文件，在评审组长要求时为其提供：

a）认证机构运行权限；

b）产品认证体系文件化的声明，包括用于批准、保持、扩大、暂停和撤销认证的规则和程序；

c）与每个产品认证制度相关的评价程序和认证过程方面的信息；

d）组织机构获得财政来源的方式及向申请人和认证产品供方一般收费情况的描述；

e）申请人和认证产品供方的权利与义务的描述，包括使用认证机构标志和提及已获认证方式的要求和限制；

f）处理投诉、申诉和争议的程序；

g）已认证产品及其供方目录；

h）NCB 与相关 CBTL 之间的协议/合同；

i）NCB 与相关 TMP，WMT，SMT，RMT 之间的协议/合同；

j）各类产品完整的认证文件；

k）申请范围内的 IEC 标准；

l）IECEE-CMC 现行决议清单；

m）IECEE 01、IECEE 02、IECEE 03（如适用）和操作文件；

n）IECEE-CTL 决议和操作程序；

o）相关工作人员的简历；

p）国家差异清单；

q）法规要求清单；

r）向 NCB 员工和相关 CBTL 提供的 IECEE 培训；

s）质量手册和其他相关程序（至少需提供英文目录）；

t）公正性和保密性政策。

CB-FCS 评审/复评审所需的附加文件：

a）工厂检查部（也可以其他方式命名）能力（如有）

CBTL 评审中需要准备的典型文件：

CBTL 应以发布文件、电子媒介或其他形式提供并更新以下文件，并在需要时提供；

a）IEC 标准和相关 IEC 解释页以及 CTL 决议；

b）作业指导书和测试程序、方法；

c）与 CBTL 已被接受范围相关的 IECEE 空白报告格式；

d）测试能力经历；

e）校准记录；

f）校准服务及其校准溯源；

g）指定测试设备、设施清单；

h) C.V. of involved staff
i) List of National Differences
j) List of Regulatory requirements
k) Measurement Uncertainty and Accuracy procedure(s)
l) Sample Identification procedure
m) Quality Manual and other associates procedures (at least the index in English).
n) Impartiality & Confidentiality Policy

h）相关工作人员简历；

i）国家差异清单；

j）法规要求清单；

k）测量不确定度和准确度程序；

l）样品识别程序；

m）质量手册及其相关程序（至少需提供英文目录）；

n）公正性和保密性政策。

Annex 2
Declaration of documents not provided

CHECK LIST OD-CB2016 and OD-CB2017

We hereby declare that no changes have occurred within the following *NCB/*CBTL/*ACTL since last assessment/re-assessment and that the previous checklist OD-CB 2016/OD-CB2017 is still valid:

*NCB/*CBTL/*ACTL name (s):

*Delete as appropriate

Address:

Date: Signature:

ACCREDITATION CERTIFICATE(S)

We hereby declare that the following *NCB/*CBTL/*ACTL is not formally accredited:

*NCB/*CBTL/*ACTL name (s):

*Delete as appropriate

Address:

Date: Signature:

附录 2
未提供文件声明

核查表 OD-CB2016 和 OD-CB2017

以下 * NCB/ * CBTL/ * ACTL 自前次评审/复评审以来无调整，前次提交的核查表 OD-CB2016 和 OD-CB2017 仍有效。特此声明。

* NCB/ * CBTL/ * ACTL 名称：

* 适当删除

地址：

日期：　　　　签名：

认可证书

以下 * NCB/ * CBTL/ * ACTL 未获得正式认可，特此声明！

* NCB/ * CBTL/ * ACTL 名称：

地址：

日期：　　　　签名：

IECEE

CB-SCHEME OD-CB2006-Ed.3.4

OPERATIONAL & RULING DOCUMENTS

6.Guidelines and information for IECEE Assessors related to IECEE Peer Assessment

Draft OD-CB2006-Ed.3.4

2008-03-14

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6. IECEE 同行评审中针对 IECEE 评审员的指南和信息

OD-CB2006-Ed.3.4 IEC - IECEE 2008

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FOREWORD

The aim of this Operational Document is to provide the IECEE Assessors information and guidelines to be verified during the following on-site Assessments:

- **Initial Assessments**
- **Follow-up Assessments**
- **Scope Extension Assessments**
- **Re-Assessments.**

前　言

本操作文件旨在向 IECEE 评审员提供下列现场评审中将被验证的信息和指导：

- 首次评审；
- 跟踪评审；
- 扩项评审；
- 复评审。

INTRODUCTION

The Assessment programme's aim is to evaluate whether the candidate NCB and/or CBTL is capable and competent to test and/or certify products against a range of IEC standards, whether they operate in accordance with ISO/IEC Guides 65 (for Certification Bodies NCBs), ISO/IEC 17025 (for the Testing Laboratory - CBTLs) and the applicable IECEE Rules and Operational Documents.
The Assessment programme's aim is also to foster confidence among the members of the IECEE.

NOTE: An assessment is a "sampling exercise" and thus every aspect of the NCB/CBTL activities cannot be covered. It does not follow, therefore, that non–conformances do not exist in areas where no assessment can be carried out.

REASSESSMENTS

For Re-Assessments additional instructions are often provided in this document, however, unless stated otherwise the other assessment instructions apply.

APPOINTMENT AND SIZE OF THE ASSESSMENT TEAMS

Initial Assessments: NCBs and CBTLs undergoing Initial assessments shall be assessed by three experts, to be appointed by the Secretary of the IECEE.
At the discretion of the IECEE Secretary, the number of experts may be reduced or increased to accommodate the scope of the application and the size of the candidate.

Follow up Assessments: NCBs and CBTLs undergoing Follow up assessments shall be assessed by one expert, to be appointed by the Secretary of the IECEE.
At the discretion of the IECEE Secretary, the number of experts may be increased to cover the issues that will have to be assessed.

Scope Extension Assessments: NCBs and CBTLs undergoing Scope Extension assessments shall be assessed by one or more experts, to be appointed by the Secretary of the IECEE.
At the discretion of the IECEE Secretary, the number of experts may be increased to accommodate the scope of the application and the size of the candidate NCB.

Re-Assessments: Accepted NCBs and CBTLs are Re-assessed on a regular basis every three years. Re-assessments are carried out by a team composed of one Lead Assessor and one (Expert) Assessor. At the discretion of the IECEE Secretary, the number of Assessors may be increased if the Re-assessment also includes extension(s) of the NCB/CBTL scope.
The three year Re-Assessment cycle will take place regardless of whether the previous time-scale is met.

Example:

Normal Cycle:

2000	2001	2002	2003	2004	2005	2006
Initial Assessment	-	-	Re-assessment	-	-	Re-Assessment

Breakdown in First Cycle:

2000	2001	2002	2003	2004	2005	2006
Initial Assessment	-	-	Delays occur	Re-Assessment	-	Re-Assessment

简介

评审活动旨在评价候选 NCB 和/或 CBTL 是否具备按照一定范围内的 IEC 标准对产品进行测试和/或认证的能力，是否按照 ISO/IEC 导则 65（认证机构 NCB）、ISO/IEC17025（测试实验室-CBTL）及任何适用的 IECEE 规则和操作文件运行。

评审活动的目的也在于增强 IECEE 成员之间的信任。

注：评审是一项“抽样活动”，因而不可能覆盖 NCB 及 CBTL 的所有活动的各个方面。因此评审没有进行到的地方并不见得就不存在不符合项。

复评审

本文件中一般会为复评审提供附加指南，但如无另外声明，其他的评审指南也适用于复评审。

评审组的选派和规模

首次评审：IECEE 秘书处指定三位专家对 NCB 和 CBTL 进行首次评审。IECEE 秘书处根据候选机构的规模和申请范围可减少或增加专家的数量。

跟踪评审：IECEE 秘书处指定一位专家对 NCB 和 CBTL 进行跟踪评审。IECEE 秘书处根据需评审的事项可增加专家的数量。

扩项评审：IECEE 秘书处指定一位或多位专家对 NCB 和 CBTL 进行扩项评审。IECEE 秘书处根据候选 NCB 的规模和申请范围可增加专家的数量。

复评审：已接受的 NCB 和 CBTL 每三年进行一次复评审。评审组由一名主任评审员和一名（专家）评审员构成。如果复评审同时覆盖 NCB 和 CBTL 的扩项，IECEE 秘书处可增加评审员数量。

无论上次时间间隔是否符合规定，周期为三年的复评审都如期进行。

例如：

正常情况：

2000	2001	2002	2003	2004	2005	2006
首次评审	—	—	复评审	—	—	复评审

首次周期耽搁：

2000	2001	2002	2003	2004	2005	2006
首次评审	—	—	延期情况发生	复评审	—	复评审

ACCREDITATIONS

When the assessed CBTL Members can provide a valid Accreditation according to ISO/IEC 17025 (current version) within the same, or greater accepted IECEE scope, the accreditation shall be considered to fulfil the IECEE requirements. Where the accreditation scope is lesser than the IECEE scope, the accreditation may also be considered to fulfil the IECEE requirements provided that the accredited quality management system of the CBTL also applies to the additional activity of the laboratory within the IECEE.

However, such background shall not preclude, in any case, the assumption that the IECEE requirements are met without verifying the effectiveness of the practical operation of both NCBs and CBTLs in accordance with the common agreed practices of testing and certification activities defined "*de jure*" by the IECEE.

STAFF EXPERIENCE

When the declared years of experience is considered to be low or not sufficient, the assessment team should make a professional judgment based upon interviews on the awareness and knowledge of the standards, witnessing of Test Report review, witnessing of testing and measuring as well as CV information e.g. previous employments and function, training programmes completed. The professional judgement shall also include the assessment of the previous experience that the assessed staff member may have had in previous employment.

The experience listed in an Assessment Report for a member of staff should include the overall experience of the individual member of staff and not just the experience in the assessed organization.

INDEPENDENCY OF THE CERTIFICATION DECISION

- sub-clause § 4.2 f) of ISO/IEC Guide 65 specifies that "The structure of the certification body shall be such as to foster confidence in its certifications. In particular, the certification body shall f 1 ensure that each decision on certification is taken by a person(s) different from those who carried out the evaluation;
- the IAF Guidance on the Application of ISO / IEC Guide 65:1996 Clause 4.2.f) of ISO/IEC Guide 65 requires that each decision on certification is taken by a person(s) different from those who carried out the evaluation. Testing and inspection, among others, are evaluation tasks.
- the IECEE procedures are very specific on this matter. OD-CB2027 (and OD-CB2020) clearly states that two CBTL or MTL signatures are required on the test report: "Tested by" or Witnessed by" and "Authorized by". Therefore, even if the person authorizing the test report has had no involvement in the evaluation, he/she is still acting on behalf of the CBTL and cannot at the same time be making a decision on certification.

The person who takes the decision on certification (and signs the Certificate) shall be a person different from those who carried out the testing evaluation.

The only exception could be made in the case of NCB staff conducting witness testing. This could hypothetically involve only two individuals at the NCB: the first one witnessing tests; and the second reviewing, authorizing and making a decision on certification - all in one. The test report would still carry three signatures: "Tested by" (MTL), "Witnessed by" (NCB) and "Authorized by" (NCB). It would be redundant to involve a third individual at the NCB.

ADDITIONAL INFORMATION FOR RE-ASSESSMENTS

Due to the fact that statistics show many situations related to a "0 or limited number" of issued CB-Test Certificates/Test reports for specific product categories, the related experience and the availability of equipment shall be deeply investigated.

认可

若被评审的 CBTL 成员能提供一份以 ISO/IEC 17025（现行版本）为依据的有效认可证书，且该证书覆盖的范围与 IECEE 范围相同或更大，该认可证书将被视为已满足了 IECEE 的要求。如已被认可的范围比 IECEE 范围小，假设 CBTL 已被认可的质量管理体系也适用于 IECEE 体系内增加的范围，该认可证书也被视为合格。

但是，此类背景在任何情况下都不排除以下假设：按照 IECEE 有权界定的符合测试和认证活动中的一般批准行为，即使没有验证 NCB 和 CBTL 进行实际运行活动的有效性，也假定认为已符合 IECEE 的要求。

人员经历

如果已声明的专业经历年数被认为较低或不足，评审组应通过面试考核其关于标准的认知及知识，目击其对测试报告的评审，目击其测试及测量过程，评估其个人简历，例如以前的工作经历及职责，已完成的培训经历等做出专业判断。此专业判断也应包括对该员工以前工作经验的评审。评审报告列举的一个职员的经历应该包括该职员全部的经历，而不只限于在被评审机构内的经历。

认证决定的独立性

- ISO/IEC 导则 65 的条款 § 4.2 f）指明：认证机构的结构应有利于提高认证的可信任度。认证机构尤其应确保做出每项认证决定的人员与进行评估的人员不同。
- IAF 对 ISO / IEC 导则 65：1996 中指明：ISO/IEC 导则 65 的条款 4.2.f）要求作出每个认证决定的人应不同于进行评估的人。测试和审查等是评估活动。
- IECEE 程序就此有非常具体的规定。OD-CB2027（和 OD-CB2020）明确说明测试报告要求 CBTL 或 MTL 在“测试”或“目击”及“批准”栏签两个不同的名字。因此，即使批准测试报告的人员并没有参与评估活动，他/她仍是代表 CBTL 行事，不能同时做出认证决定。

做出认证决定（签署证书）的人应不同于进行测试评估的人。

仅在 NCB 人员实施目击测试时可例外。在这种情况下可能仅涉及两个 NCB 人员：第一个目击测试，第二个进行审核，批准并做出认证决定全部由一人完成。测试报告仍将有 3 个签名：“测试”（MTL），“目击”（NCB）和“批准”（NCB）。在此情况下涉及第 3 个 NCB 人员是多余的。

复评审附加信息

鉴于统计数据显示 CB 测试证书/报告颁发数量为 0 或极少的情况某些产品类别有很多，复评审时应深入调查相关经历和设备的可用性。

The re-assessment shall include verification of the previous assessment of the accepted corrective actions implementation.
The IECEE Secretary shall provide additional information about the ACAG specific recommendations or other specific issues related to the assessed NCB or CBTL in the "Particular Points to be checked" section of the re-assessment documentation webpage.

DOCUMENTATION
A checklist of the documents required can be obtained in OD-CB 2007. These documents are provided and posted on the IEC website.

Once received by the IECEE Secretariat, the documentation is posted on the IECEE Web Site, into a dedicated restricted area identified as Assessments and Re-Assessments in Progress (Restricted to Assessment teams and Organisations to be assessed) that is accessible only to the Assessment Team and the assessed NCB/CBTL:

http://www.iecee.org/ass_re_assess/index.htm

It is the Role of the Lead Assessor to complete the Assessment Report(s) OD-CB2004 and OD-CB 2005, however, for the sake of efficiency and to save time, it is desirable that the assessed NCB/CBTL pre-completes these ODs with as much information as possible by using the same (or compatible) virus free software.

It is also the role of the Lead Assessor to check the language of the Quality Manual, Quality Procedures and Working Instructions, making the provisional preparations to have a third party translator available during the assessment should this language not match that of the Assessment Team.

SCOPE OF RE-ASSESSSMENT (ANNEX 1A)

The Assessment team under the leadership of the Lead Assessor shall determine in their Assessment Plan the standards they would like to assess through the IECEE Website where the scope of NCBs and CBTLs is detailed. It is the responsibility of the Lead Assessor to set up the assessment plan pertaining to the sampling of the standards to be assessed and to provide it to the assessed organisation preferably during the opening meeting of the on-site assessment.

It is underlined that Scope extensions shall be processed following the current procedure and can not be included in the Annex 1A nor can scope extensions be processed without the formal assignment by the IECEE Secretariat.

The selection of the standards & product categories shall be such to be representative of a sampling exercise and is dependent e.g. on the competence of the Lead assessor and Technical assessor and the product category that is targeted, as per the example below:

复评审应包括验证上一次评审已经接受的纠正措施的执行情况。IECEE 秘书处应该在复评审文件网页上的“特别评审点”部分提供关于 ACAG 特别建议的附加信息或与被评审 NCB 或 CBTL 有关的其他特定信息。

文件

所要求文件的清单可以从 OD-CB2007 中得到。IEC 网页提供这些文件。

IECEE 秘书处收到文件后，将其发布在 IECEE 网站上称为“进行中的评审和复评审”的专用受限区（受限区仅向评审组和被评审机构开放），评审组和被评审 NCB/CBTL 可以通过以下路径访问该受限区。

http://www.iecee.org/ass_re assess/index.htm

完成评审报告 OD-CB2004 和 OD-CB2005 应该是评审组长的任务，但为提高效率和节省时间，被评审 NCB/CBTL 用同样（或兼容的）的无病毒软件预先完成此类 OD 文件上尽可能多的信息将非常有用。

评审组长还应检查质量手册、质量程序和作业指导书所用的语言，如有关语言和评审组的语言不匹配，应在评审期间安排临时的第三方的翻译。

复评审的范围（附录 1A）

评审组在评审组长的领导下应通过 IECEE 网站了解具体的 NCB 和 CBTL 的范围，在评审计划中决定评审的标准。评审组长有责任针对待评审标准的抽样建立评审计划，并最好能在现场评审的首次会议上提供给被评审机构。

特别强调的是扩项应按现行的程序处理，不能被包括在附录 1 A 中，未经 IECEE 秘书处的正式委派也不能处理扩项。

标准和产品类别的选择应按抽样实践中的代表性方法，按照下列的例子，根据评审组长和技术评审员的能力、特别关注的产品类别等做出选择：

	Scope of the CBTL	Sampling made during the on site Re-assessment
EMC	CISPR24(ed.1);am1;am2, 60601-1-2(ed.2), 60945(ed.4), 60947-1(ed.4), 61000-3-2(ed.2);am1, 61000- 3-3(ed.1);am1, 61000-3-11(ed.1), 61131-2(ed.2), 61326(ed.1), 61547(ed.1);am1, 62053-11(ed.1), 62053-21(ed.1), 62053-22(ed.1), 62053-23(ed.1)	**CISPR24(ed.1);am1;am2, 62053-11(ed.1), 62053-21(ed.1),**
HOUS	60335-1(ed.2);am1;am2, 60335-1(ed.2;2nd impr);am1-am6, 60335-1(ed.3);am1;am2, 60335-1(ed.4);am1;am2, 60335-2-2(ed.4);am1;am2, 60335-2-2(ed.5);am1;am2, 60335-2-3(ed.4);am1;am2, 60335-2-3(ed.5);am1, 60335-2-4(ed.4);am1;am2, 60335-2-4(ed.5);am1;am2, 60335-2-5(ed.3);am1-am3, 60335-2-5(ed.4);am1;am2, 60335-2-5(ed.5);am1, 60335-2-6(ed.3);am1-am3, 60335-2-6(ed.4);am1, 60335-2-6(ed.5);am1, 60335-2-7(ed.3);am1;am2, 60335-2-7(ed.4);am1;am2, 60335-2-7(ed.5), 60335-2-7(ed.6);am1;am2, 60335-2-8(ed.3), 60335-2-8(ed.4);am1, 60335-2-8(ed.5);Am1, 60335-2-9(ed.4);am1;am2, 60335-2-9(ed.5);am1;am2, 60335-2-10(ed.4),	**60335-1(ed.3);am1;am2, 60335-2-3(ed.5);am1, 60335-2-4(ed.5);am1;am2, 60335-2-5(ed.4);am1;am2 60335-2-9(ed.5);am1;am2,**
OFF	60825-1(ed.1);am1;am2, 60825-2(ed.2), 60950(ed.2);am1-am4, 60950(ed.3), 60950-1(ed.1), 60950-1(ed.2),	**60950-1(ed.2) 60825-2(ed.2)**
TRON	60065(ed.6), 60065(ed.7);am1	**60065(ed.7);am1**

During the assessment the assessed organisation must be able to provide, on the basis of the assessment plan and upon request by the assessment team, the number of relevant certificates and test reports issued in last two years. The assessment team can then request to see these certificates or test reports as appropriate (NCB or CBTL)

Note: if the assessed organisation is not able to provide figures for the number of test reports/CBTCs for the selected standards during the on–site assessment the lead assessor shall issue a non–conformity report for improper document control.

	CBTL 的范围	复评审现场评审中的抽样
EMC	CISPR24（ed. 1）；am1；am2， 60601-1-2（ed. 2）， 60945（ed. 4）， 60947-1（ed. 4）， 61000-3-2（ed. 2）；am1， 61000-3-3（ed. 1）；am1， 61000-3-11（ed. 1）， 61131-2（ed. 2）， 61326（ed. 1）， 61547（ed. 1）；am1， 62053-11（ed. 1）， 62053-21（ed. 1）， 62053-22（ed. 1）， 62053-23（ed. 1）	CISPR24（ed. 1）；am1；am2， 62053-11（ed. 1）， 62053-21（ed. 1），
HOUS	60335-1（ed. 2）；am1；am2， 60335-1（ed. 2；2nd impr）；am1-am6， 60335-1（ed. 3）；am1；am2， 60335-1（ed. 4）；am1；am2， 60335-2-2（ed. 4）；am1；am2， 60335-2-2（ed. 5）；am1；am2， 60335-2-3（ed. 4）；am1；am2， 60335-2-3（ed. 5）；am1， 60335-2-4（ed. 4）；am1；am2， 60335-2-4（ed. 5）；am1；am2， 60335-2-5（ed. 3）；am1-am3， 60335-2-5（ed. 4）；am1；am2， 60335-2-5（ed. 5）；am1， 60335-2-6（ed. 3）；am1-am3， 60335-2-6（ed. 4）；am1， 60335-2-6（ed. 5）；am1， 60335-2-7（ed. 3）；am1；am2， 60335-2-7（ed. 4）；am1；am2， 60335-2-7（ed. 5）， 60335-2-7（ed. 6）；am1；am2， 60335-2-8（ed. 3）， 60335-2-8（ed. 4）；am1， 60335-2-8（ed. 5）；Am1， 60335-2-9（ed. 4）；am1；am2， 60335-2-9（ed. 5）；am1；am2， 60335-2-10（ed. 4），	60335-1（ed. 3）；am1；am2， 60335-2-3（ed. 5）；am1， 60335-2-4（ed. 5）；am1；am2， 60335-2-5（ed. 4）；am1；am2 60335-2-9（ed. 5）；am1；am2，
OFF	60825-1（ed. 1）；am1；am2， 60825-2（ed. 2）， 60950（ed. 2）；am1-am4， 60950（ed. 3）， 60950-1（ed. 1）， 60950-1（ed. 2），	60950-1（ed. 2） 60825-2（ed. 2 ）
TRON	60065（ed. 6）， 60065（ed. 7）；am1	60065（ed. 7）；am1

在评审过程中，被评审机构应能够根据评审计划和评审组的要求，提供过去两年中发出的相关证书和测试报告的数字，评审组可以根据需要要求察看这些证书和报告（NCB 或 CBTL）。

注意：如果被评审机构不能在现场评审中提供被抽样标准的测试报告/CB 测试证书的数字，评审组长应开具关于文件控制不恰当的不合格报告。

If the assessed organisation is unable to demonstrate testing/certification experience for the selected standard, the standard should still be listed in Annex 1A with indication that there is no experience, and the "not accepted" box should be checked. However, the Assessment team should assess through the documentation of the assessed organisation that the real situation is matching the statement by the organisation. Subsequently, the Assessment team shall re-consider the sampling of the standards they would like to assess.

The Assessment team will then complete the blank Annex 1A listing only those standards which have been selected from the current scope and checked during the assessment. They will provide their acceptance recommendation by ticking YES or NO as appropriate.

It is obvious that the assessment team assigned for the next round of the re-assessment shall take into account the previously selected standards and shall determine their sampling based upon this.

如果被评审的机构不能对被抽样的标准证明其测试/认证经历，此标准仍应在附录 1A 中列出，但应标明无经历，并勾选“不接受”栏。然而评审组应了解该机构的实际情况是否与其声明一致。然后评审组再重新考虑选取他们拟进行评审的标准。

评审组然后应完成空白的附录 1A，只列明在本次评审中那些从现有范围中已被抽查并评审过的标准。他们将通过勾“YES”和“NO”的方式提供通过评审的建议。

很明显下一次被派复评审任务的评审组应考虑上次选择的标准并将根据此情况决定他们的抽样。

EXAMPLE OF ACCESSING THE RESTRICTED AREA OF ASSESSMENTS:

Assessments	
CBTL ERI	CBTL CEBEC
NCB AENOR & New CBTL CIEMAT (PV)	NCB UL Inc., CBTL UL Northbrook & New CBTL ASU (PV)
NCB & CBTL VDE (PV)	NCB JET extension (CONT & PROT) and new CBTL JET Tokyo
NCB & CBTL LGA QualiTest GmbH	NCB & CBTL RWTUV Systems GmbH
New Candidate NCB KVALITET & extension of scope CBTL KVALITET	CBTLs GZESL, STLEA & FANGYUAN (TEAM 4)
CBTL KEMA-IEV GmbH	New Candidate CBTL ETC Taiwan
New Candidate CBTL CSA Cleveland	New Candidate CBTL Nemko Taiwan
New Candidate CBTL CETECOM	Extension of Scope CBTL TUV RH Yokohama
Re-Assessments	
NCB & CBTL ITS Canada	CBTL KVALITET
NCB CQC, CBTLs BTIHEA, TIRT & SEC (TEAM 1)	CBTLs STIEP, TILVA & SEATL (TEAM 2)
CBTLs TIET, TICW and NEW CBTL FCII (TEAM 3)	CBTLs GTIHEA, CEPREI, GTIES & HKSTC (TEAM 5)
NCB OVE & associated CBTLs	CBTLs ITS Stuttgart, ITS Wiesbaden & ITS Kaufbeuren
CBTL CSA Irvine	NCB/CBTL SLG
NCB/CBTL MET	NCB/CBTL FM Approvals
CBTL TUV RH Pleasanton	NCB/CBTL BSI
NCB ASTABEAB & associated CBTLs	CBTLs ITS Boxborough, ITS Duluth & ITS Menlo Park
NCB/CBTL PSB	CBTL TUV RH Korea

例子：访问评审受限区

评审	
CBTL ERI	CBTL CEBEC
NCB AENOR & New CBTL CIEMAT（PV）	NCB UL Inc.，CBTL UL Northbrook & New CBTL ASU（PV）
NCB & CBTL VDE（PV）	NCB JET extension（CONT & PROT）and new CBTL JET Tokyo
NCB & CBTL LGA QualiTest GmbH	NCB & CBTL RWTUV Systems GmbH
New Candidate NCB KVALITET & extension of scope CBTL KVALITET	CBTLs GZESL，STLEA & FANGYUAN（TEAM 4）
CBTL KEMA-IEV GmbH	New Candidate CBTL ETC Taiwan
New Candidate CBTL CSA Cleveland	New Candidate CBTL Nemko Taiwan
New Candidate CBTL CETECOM	Extension of Scope CBTL TUV RH Yokohama
复评审	
NCB & CBTL ITS Canada	CBTL KVALITET
NCB CQC，CBTLs BTIHEA，TIRT & SEC（TEAM 1）	CBTLs STIEP，TILVA & SEATL（TEAM 2）
CBTLs TIET，TICW and NEW CBTL FCII（TEAM 3）	CBTLs GTIHEA，CEPREI，GTIES & HKSTC（TEAM 5）
NCB OVE & associated CBTLs	CBTLs ITS Stuttgart，ITS Wiesbaden & ITS Kaufbeuren
CBTL CSA Irvine	NCB/CBTL SLG
NCB/CBTL MET	NCB/CBTL FM Approvals
CBTL TUV RH Pleasanton	NCB/CBTL BSI
NCB ASTABEAB & associated CBTLs	CBTLs ITS Boxborough，ITS Duluth & ITS Menlo Park
NCB/CBTL PSB	CBTL TUV RH Korea

EXAMPLE OF A SELECTED NCB/CBTL:
http://www.iecee.org/ass_re_assess/ass_etc_2006/ass_etc_2006.html

Initial Assessment 2006: New Candidate CBTL ETC (VDE)

Assessment Team:

Lead Assessor: Mr. Masahiro Sato	Confirmed

Responsible NCB Assessment Contact: Mr. Klaus Kress & CC. Mr. Gerhard Dreger

Assessment Date: To be advised

This assessment will be completed in conjunction with no other assessments.

Assessment Documentation (as per OD-CB2007): Incomplete

Application and Endorsement in writing from the Member Body of the country where the NCB is located	MB endorsement.pdf
Application in writing from the NCB	NCB Application.pdf
Application Form OD-CB2011 for candidate CBTL	OD-CB2011.pdf
Declaration of Testing Experience	**Not yet available**
List of Testing Equipment relevant to the scope for which the Recognition is sought, OD-CB2024	60320 Testing equipment.pdf 60884 Testing equipment.pdf
Checklist CBTL OD-CB2017	OD-CB2017.doc
Objective evidence that the candidate CBTL: - is an integral part, such as a department, division, branch or subsidiary of the relevant NCB, or - is under the complete technical and legal control of the relevant NCB, or - a written agreement clearly outlining the commitment, duty and responsibility of both the candidate CBTL and the relevant NCB to follow IECEE Rules	**Not yet available**
Organisation Charts of the candidate showing details of how the certification decision is processed	**Not yet available**
If the candidate is accredited, Accreditation Certificate(s) and related scope. If the candidate is not accredited, Annex 2 of OD-CB2007	**Not yet available**
OD-CB2005 duly "pre-filled in" to the best extent possible	**Not yet available**
Additional documentation provided	N/A

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某 NCB/CBTL 的例子

http：//www. iecee. org/ass _ re _ assess/ass _ etc _ 2006/ass _ etc _ 2006. html

2006 年初次评审：新的候选 CBTL ETC（VDE）	
评审组： 组长：Masahiro Sato 先生　　　　　　已确认	
负责评审的 NCB 联系人：Klaus Kress 先生，同时抄送 Gerhard Dreger 先生	
评审日期：待定	
没有其他需共同完成的评审	
评审文件：（根据 OD-CB2007）：不完整	
申请及由 NCB 所在国家成员机构（MB）的书面认可	MB 的认可 . pdf
NCB 书面的申请书	NCB 申请书 . pdf
候选 CBTL 的申请表格 OD-CB2011	OD-CB2011. pdf
测试经历声明	**还未提供**
申请范围相关的测试设备清单 OD-CB2024	60320 测试设备 . pdf 60884 测试设备 . pdf
CBTL OD-CB2017 核查表	OD-CB2017. doc
证明候选 CBTL 的客观证据： — 与 NCB 同属一个机构，例如部门、分部、分支，还是其附属机构或 — 在技术上法律上由 NCB 完全控制 — 一份明确规定 CBTL 和 NCB 的承诺、义务、责任的书面协议以遵守 IECEE 规定	**还未提供**
候选机构组织结构图，表明认证决定是如何处理的细节	**还未提供**
如果候选机构已获得认可，认可证书及相关的范围，如果候选机构还没被认可，请附 OD-CB2007 附录 2	**还未提供**
已尽可能“预填写”的 OD-CB2005	**还未提供**
附加提供的文件	不适用

EXAMPLE OF A SELECTED RE-ASSESSED NCB/CBTL:

http://www.iecee.org/ass_re_assess/re_nemkodallas_2006/re_nemkodallas_2006.html

Re-Assessment 2006: CBTL Nemko Dallas

Assessment Team:

Lead Assessor: Ms. Pamela Gwynn	Confirmed
Technical Assessor: Mr. Christopher Hee	Confirmed
Joint Accreditation Body Assessment:	✘

Responsible NCB Assessment Contact: Mr. Trond Sollie

Assessment Date: 2006-05-10/11

This assessment will be completed in conjunction with no other assessments.

Assessment Documentation (as per OD-CB2007): Complete

Checklist CBTL OD-CB2017	OD-CB2017.doc
Organisation Charts of the candidate showing details of how the certification decision is processed	See OD-CB2005.doc
If the candidate is accredited, Accreditation Certificate(s) and related scope. If the candidate is not accredited, Annex 2 of OD-CB2007	See OD-CB2005.doc
Ongoing scope of acceptance (to be provided by the IECEE Secretariat for administrative scope extensions granted after the creation of Annex 1A)	N/A
OD-CB2005 duly "pre-filled in" to the best extent possible	OD-CB2005.doc
Particular Points to be Checked by the Assessment Team	None
Previous Assessment Report(s)	EVAG/212/AR.pdf
Additional documentation provided	none

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选择一个 NCB/CBTL 复评审的例子

http://www.iecee.org/ass_re_assess/re_nemkodallas_2006/re_nemkodallas_2006.html

2006 年复评审：CBTL Nemko Dallas	
评审组：	
评审组长：Pamela Gwynn 女士	已确认
技术评审员：Christopher Hee 先生	已确认
与认可机构的联合评审	×
负责 NCB 评审的联系人：Trond Sollie 先生	
评审日期：2006-05-10/11	
此次评审将不与其他评审连同完成	
评审文件（根据 OD-CB2007）：完成	
CBTL OD-CB2017 核查表	OD-CB2017.doc
候选机构组织结构图，表明认证决定是如何处理的细节	请见 OD-CB2005.doc
如果候选机构已获得认可，认可证书及相关的范围。如果候选机构还没被认可，请附 OD-CB2007 附录 2	请见 OD-CB2005.doc
当前的接受范围（由 IECEE 秘书处提供在附录 1A 产生后授予的管理扩项）	不适用
已尽可能“预填写”的 OD-CB2005	OD-CB2005.doc
需由评审组检查的特别要点	无
上次的评审报告	EVAG/212/AR.pdf
提供的附加文件	无

TYPICAL DOCUMENTATION TO BE MADE AVAILABLE DURING THE ASSESSMENT OF NCBs

During the preparation of an on-site assessment the Lead Assessor may request the following documentation:

a) Information about the authority under which the certification body operates;
b) A documented statement of its product certification system, including its rules and procedures for granting, maintaining, extending, suspending and withdrawing certification;
c) Information about the evaluation procedures and the certification process related to each product certification system;
d) A description of the means by which the organisation obtains financial support and general information on the fees charged to applicants and to suppliers of certified products;
e) A description of the rights and duties of applicants and suppliers of certified products, including requirements, restrictions or limitations on the use of the certification body's logo and on the ways of referring to the certification granted;
f) Information about procedures for handling complaints, appeals and disputes;
g) A directory of certified products and their suppliers;
h) Agreement/Contract between the NCB and associated CBTL(s)
i) Agreement/Contract between the NCB and associated TMPs, WMTs, SMTs, RMTs
j) Complete certification files of each product category, including CB Test Certificates (or CB FCS CAC) and associated Test reports (or CB FCS CAR).
k) IEC standards as per the scope
l) IECEE-CMC list of current decisions
m) IECEE 01, IECEE 02, IECEE 03 (if applicable), Operational Documents
n) IECEE-CTL Decision Sheets and Operational Procedures
o) C.V. of involved staff
p) List of National Differences
q) List of Regulatory requirements
r) IECEE Training provided to NCB's staff and associated CBTL(S)
s) Quality Manual and other associates procedures (at least the index in English).
t) Impartiality and Confidentiality policy

Additional Documentation required for CB-FCS assessments/re-assessments:
a) Information about the Factory Inspection department (however named) capability (if any)

In addition to assessing the NCB against ISO/IEC Guide 65, the Assessment Team should focus on the:

- ♦ Knowledge of the personnel responsible for the area audited on CB & CB-FCS (if applicable) procedures
- ♦ Document control of standards
- ♦ Procedures relevant to:
  a) grant, maintain, withdraw and, if applicable, suspend certification
  b) Re-evaluation; in the event of changes significantly affecting the product's design or specification that the product may no longer comply with the requirements of the certification process.
- ♦ Application of the relevant IECEE-CMC and CTL procedures
- ♦ Review on randomly-checked completed *"down-stream/up-stream" files,

NCBs 评审需要准备的典型文件

现场评审时评审组长可能要求提供以下文件

a）认证机构运行权限；

b）产品认证体系文件化的声明，包括用于批准、保持、扩大、暂停和撤销认证的规则和程序；

c）与每个产品认证制度相关的评价程序和认证过程方面的信息；

d）描述组织机构获得财政来源的方式以及向申请人和认证产品供方的收费情况；

e）描述认证产品供方和申请人的权利和义务，包括使用认证机构标志和提及已获认证的方式的要求和限制；

f）处理抱怨、投诉和争议的程序；

g）已认证产品及其供方的目录；

h）NCB 及其相关 CBTL 之间的协议/合同；

i）NCB 及其相关 TMP、WMT、SMT、RMT 实验室之间的合同/协议；

j）每种产品类别完整的认证文件，包括 CB 测试证书（或者 CB FCS CAC）和相关的测试报告（或者 CB FCS CAR）；

k）认证范围内的 IEC 标准；

l）IECEE-CMC 当前决议的清单；

m）IECEE 01、IECEE 02、IECEE 03（如适用）、操作文件；

n）IECEE-CTL 决议和操作程序；

o）所涉及工作人员的简历；

p）国家差异清单；

q）法规要求清单；

r）向 NCB 人员及相关 CBTL 提供的 IECEE 培训；

s）质量手册和其他相关程序文件（至少有英文目录）；

t）公正性和保密性政策。

CB－FCS 评审/复评审所需的附加文件

a）工厂检查部门（也可其他命名）能力（如有）；

除按 ISO/IEC 导则 65 评审 NCB 外，评审组应关注以下几点：

♦ 负责 CB 及 CB-FCS（如适用）程序受审范围的人员的知识；

♦ 对标准实施的文件控制；

♦ 以下相关程序：

a）批准、保持、撤销以及（如适用）暂停认证；

b）重新评价－当产品发生重大变更影响到产品设计或规格，使得产品不再符合认证过程的要求时；

♦ 相关 IECEE-CMC 和 CTL 程序的应用；

♦ 审阅随机选取的案例的完整的*“上游/下游”文件。

* *Files that contain all information including, for example, application from Applicant/Manufacturer, setting of the type testing programme, Test Report, certification decision, etc.*

Tip: Select CB Certificates from the IECEE on-line system and track the certification process over the corresponding CBTL file:
http://domino.iec.ch/cbtestcert.htm

* 文件应包含所有信息，例如申请人/制造商的申请书、型式试验计划安排、测试报告、认证决定等。

提示：在 IECEE 在线系统选择 CB 证书，通过相应的 CBTL 文件跟踪认证过程：

http：//domino. iec. ch/cbtestcert. htm

TYPICAL DOCUMENTATION TO BE MADE AVAILABLE DURING THE ASSESSMENT OF CBTLs

During the preparation of an on-site assessment the Lead Assessor may request the following documentation:

a) Completed Test Reports and associated measurement records
b) IEC Standards and related IEC interpretation sheets and CTL Decision Sheets
c) Working instructions, Testing procedures/methods
d) IECEE Blank Test Report Forms related to the scope for which the CBTL has been accepted
e) Testing proficiency experience (PTPs completed)
f) Calibration records
g) Calibration Services and Calibration Traceability
h) List of defined Testing Equipment/facilities
i) C.V. of involved staff
j) List of National Differences
k) List of Regulatory requirements
l) Measurement Uncertainty and Accuracy procedure(s)
m) Sample Identification procedure
n) Quality Manual* and associated procedures that support the Quality Manual
o) Impartiality and Confidentiality policy

* If the Quality Manual and associated procedures are not in English, at least the index and headings must be in English.

In addition to assessing the CBTL against ISO/IEC 17025, the Assessment Team should focus on:

a) The Laboratory's procedures for achieving traceability of records/measurements
b) Procedures for calibration, verification and maintenance of equipment
c) The personnel competence and capability to carry out tests on selected clauses of the standards;
d) The adequacy between the testing requirements and the testing facilities necessary to complete the testing programme
e) The operational staff's understanding of sensitive requirements of relevant standards and CTL decisions ;
f) The review of selected Test Reports linked with the "Up-stream/down-stream" of the responsible NCB;
g) The procedures agreed with the NCB regarding the acceptance of critical component;
h) The effectiveness of the power supply system (voltage stability, current, distortion percentage, electric schematics, previous campaign of tests aimed to check the suitability of the system);
i) The subcontracting of tests and the relevant documentation (agreements, list of instruments, distances from the subcontracted laboratory, compatibility with test sequences.
j) Some other matters, not yet covered at present by Operational Documents, such as the existence of Satellite Laboratories owned by the assessed organisation.
k) The Proficiency Testing Programmes undergone/undergoing.

CBTL 评审需要准备的典型文件

现场评审时评审组长可能要求提供以下文件：

a）完整的测试报告及相关的测量记录；

b）IEC 标准和相关 IEC 解释页以及 CTL 决议；

c）作业指导书和测试程序、方法；

d）与 CBTL 已被接受范围相关的 IECEE 空白测试报告格式；

e）测试能力经历（已完成的 PTP 项目）；

f）校准记录；

g）校准服务及其校准溯源；

h）指定测试设备、设施清单；

i）所涉及工作人员的简历；

j）国家差异清单；

k）法规要求清单；

l）测量不确定度和准确度程序；

m）样品识别程序；

n）质量手册及相关的支持质量手册的程序*；

o）公正性和保密性政策。

*若质量手册及其相关程序非英文，则至少目录和标题应是英文。

除按 ISO/IEC 导则 17025 评审 NCB 外，评审组应关注以下几点：

a）实现记录/测量可追溯性的实验室程序；

b）设备的校准、验证和维护程序；

c）人员应能胜任并有能力按指定标准条款进行测试；

d）具备足够的能满足测试要求和完成测试计划所必需的测试设施；

e）操作人员对相关标准和 CTL 决议细节要求的理解；

f）评审与负责的 NCB“上游/下游”相关联的选定的测试报告；

g）与 NCB 一致的关键零部件认可程序；

h）电源供电系统的有效性（电压稳定性、电流、畸变率、电气示意图、上一次核查电源系统适宜性的实验）；

i）实验的分包和相关文件（协议、仪器清单、分包实验室距离、符合检验顺序）；

j）可能在操作文件中没有被提及的其他事项，如被评审机构拥有“卫星实验室”的情况；

k）已经完成或正在进行的能力验证计划。

THE RE-ASSESSMENT TEAM SHOULD ALSO FOCUS ON:
Previous Assessment Reports and clearance of related NCRs, and additional information arising from current issues dealt with by the IECEE Secretariat.

NOTE : In order to verify these requirements the candidate CBTL is requested to repeat some significant tests under the scope of the application.

ACCEPTANCE OF STANDARDS AND PRODUCT CATEGORIES
Standards listed in Annex 1A/B of OD-CB 2004 and OD-CB2005 must detail the Standard Edition and the Amendment as applicable. This information can be extracted from the NCB's scope page e.g.: http://www.iecee.org/CBSCHEME/Scope_NCB/csa_scope.htm

PRODUCT CATEGORY	CB SCHEME SCOPE	CB-FCS SCOPE
MEAS	61010-1(ed.1);am1;am2, 61010-1(ed.2),	N/A
OFF	60950(ed.3), 60950-1(ed.1), 60950-21(ed.1)	N/A

For Initial Assessments, Follow-up Assessments and Scope Extension Assessments, the assessed NCBs/CBTLs shall show evidence of certification/ testing experience for determined IEC standards or equivalent national/regional standard (1).
Experience is considered sufficient when at least 10 Certificates/Test Reports have been issued for the product category applied for but at least one Certificates/Test Reports for the specific part 2 standard applied for.
NOTE(1) : testing/certification on the basis of national/regional standard can be taken into account if the relevant standards are reasonably harmonized to IEC standards.

As a result of the assessment of the NCBs/CBTLs experience the Lead Assessor's shall either:
a) Tick the box(es) "accepted" in the relevant part of Annex 1 of OD-CB2004 and/or OD-CB2005 when at least 10 Certificates/Test Reports have been issued for the product category applied for but at least one Certificates/Test Reports for the specific part 2 standard applied for.

b) To tick the box(es) "not accepted" in the relevant part of Annex 1 of OD-CB2004 and/or OD-CB2005 when less than 10 Certificates/Test Reports have been issued for the product category applied for or no Certificates/Test Reports for the specific part 2 standard applied for.

NON-CONFORMITY REPORTS
Root causes of the Non-conformities raised by the Assessment team and the proposed corrective actions to overcome such non-conformities do not need to be completed at the time of the assessment if the assessed organisation needs time to investigate further the non-conformities. In these circumstances the status "further investigation time needed" shall be noted in the relevant NCR accordingly. However, where the root causes are obvious, for example an assessed

复评审组也应关注以下方面：

上次的评审报告和相关不符合报告的纠正以及 IECEE 秘书处对当前问题处理的附加信息；

注：为验证上述要求，要求候选 CBTL 重复申请范围内的一些重要实验。

标准和产品类别的接受

OD-CB2004 和 OD-CB2005 附录 1A/B 所列标准应详细附含其标准版本和修正件。这方面信息可从 NCB 的范围页面摘取。例如：

http：//www.iecee.org/CBSCHEME/Scope _ NCB/csa _ scope.htm

产品类别	CB 体系范围	CB-FCS 范围
MEAS	61010-1（ed.1）；am1；am2， 61010-1（ed.2），	无
OFF	60950（ed.3）， 60950-1（ed.1）， 60950-21（ed.1）	无

对于首次评审、跟踪评审和扩项评审，被评审的 NCB/CBTL 应出示相应 IEC 标准或等效国家/区域标准的认证/测试经历。

如果申请的每个产品类别已出具至少 10 份证书/测试报告，且每个具体标准已出具至少一份证书/测试报告，就认为具有充足的经历。

注：(1) 如国家/区域标准与 IEC 标准合理协调，也可以考虑基于这些标准的测试/认证。

根据对 NCB/CBTL 经历的评审结果，评审组长可以：

a）如果申请的产品类别已出具至少 10 份证书/测试报告，且每个具体标准已出具至少一份证书/测试报告，在 OD-CB2004 和/或 OD-CB2005 附录 1 相关部分“接受”一栏打勾；

b）如果申请的产品类别已出具的证书/测试报告少于 10 份，或某个具体标准没有证书/测试报告，在 OD-CB2004 和/或 OD-CB2005 附录 1 相关部分“不接受”一栏打勾。

不符合报告

如果被评审机构需要时间进一步调查评审组提出的不符合项的内容，则不需要在评审时马上完成根本原因分析和消除此不符合项的整改措施的建议。在此情况下将在相应的不符合报告中注明“需时间进一步调查”的状态。然而，如果根源是很明显的，例如被评审的程序与相关的书面程序偏离，就可以当时报告根本原因甚至整改措施的建议。

在所有情况下，不符合项的根源都必须列在报告中。

procedure deviates from the relevant written procedure, the root cause shall be reported and possibly the proposed corrective action(s).
In all circumstances the root causes for NCRs shall be reported.

ADDITIONAL ISSUES FOR RE-ASSESSMENTS
When the assessed NCBs/CBTLs cannot show evidence of certification/ testing experience for determined standards since the last re-assessment yet wishes to maintain these standards in its scope, they may provide Claims of Capability (OD-CB 2021) up to one month after the on-site assessment to the IECEE Secretariat.

Since the Claim(s) of Capability processing is outside the task of the Assessment Team, if the latter is provided with the Claim(s) of Capability during the on-site re-assessment, the Lead Assessor shall:
a) Tick the box(es) “not accepted” in the relevant part of Annex 1A of OD-CB2004 and/or OD-CB2005.
b) send the Claim(s) of Capability to the IECEE Secretariat for further processing.

The aim of the Claims of Capability is to provide members NCB and CBTL the possibility to prove that, although no test/certification was made since the last re-assessment, they have the staff with the relevant qualifications and experience for the relevant standard(s), the required testing equipment, testing/certification procedure(s) and instructions and that they have tested/certified to the relevant standards in the past.
Claims of Capability to maintain standards in the scope of acceptance is exclusively related to Re-assessments and shall not be taken into account for Initial or Scope extension assessments

In the case of specific problems encountered during the on-site assessments that require immediate assistance please either send an e-mail or call the IECEE Executive Secretary at the following hotline numbers:

During GMT working hours : +41 22 9190 207, +41 22 9190 252 or +41 22 9190 247

Outside GMT working hours: Mobile +41 79 36 76 694

复评审附加问题

当被评审 NCB/CBTL 不能出示自上次复评审后某标准的认证/测试经历的证据，但仍想在其范围内保留该标准，则他们可以在现场评审后一个月内向 IECEE 秘书处提交能力声明（OD-CB2021）。

由于能力声明的处理不在评审组任务范围内，如果现场评审中能力声明被提交给评审组，则评审组长可以：

a）在 OD-CB2004 和/或 OD-CB2005 附录 1A 相关部分“不接受”一栏打勾；

b）把能力声明送至 IECEE 秘书处等待进一步处理。

能力声明旨在向 NCB 和 CBTL 成员提供可能性以证明：尽管自上次复评审后没有任何测试/认证经历，但他们仍具备进行相关标准测试资格和经验的人员、实验所需的测试设备、测试/认证程序和指导书，且过去曾经按照相关标准进行测试/认证。

利用能力声明保留被接受范围内的标准只与复评审有关，对于首次评审或扩项评审则不予考虑。

现场评审中遇到需要即刻帮助的问题可以发 e-mail 或打电话给 IECEE 执行秘书：

热线电话是：

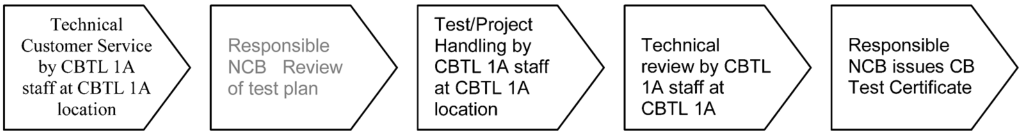
格林尼治工作时间：＋41 22 9190 207 ，＋41 22 9190 252 或 ＋41 22 9190 247

格林尼治非工作期间：移动电话：＋41 79 36 76 694

ANNEX 1

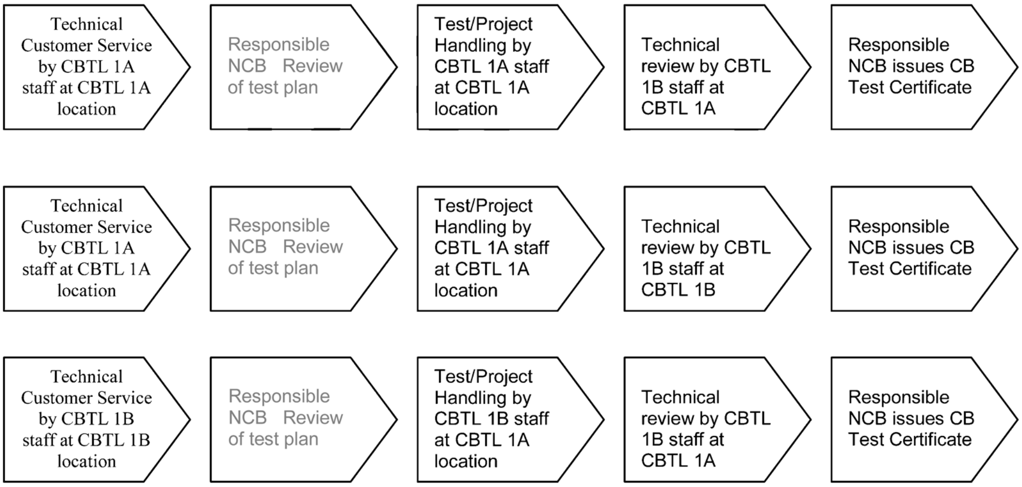
Sharing of CBTL Staff Person(s)

Current (traditional) situation:



Sharing of CBTL staff – to be permitted as recommended by the ACAG that this is not an infringement of the Rules as long as the CBTLs operate under the same responsible NCB. Further, it has to be documented which CBTL the shared “CBTL staff person(s)” is working for and his/her documented competence (CV, training records, etc.):

(Examples only)



附录 1

CBTL 职员的共享使用

现在（传统）情况：

CBTL 1A 人员在 1A 场所提供技术性客户服务 → 主管的 NCB 人员审核测试计划 → CBTL 1A 人员在 CBTL 1A 场所进行项目测试 → CBTL 1A 人员在 CBTL1A 场所进行技术审核 → 主管的 NCB 职员签发 CB 测试证书

CBTL 职员的共享使用－根据 ACAG 的建议只要 CBTL 在同一个主管 NCB 控制下运营就不违反相关规则，就是允许的。另外，必须有书面文件表明被共享使用的 CBTL 职员是为哪个实验室工作的，和他/她本人通过文件记录的能力情况（简历、培训记录等）：

（举例）

CBTL1A 人员在 CBTL1A 场所提供技术性客户服务 → 主管的 NCB 人员审核测试计划 → CBTL 1A 人员在 CBTL 1A 场所进行项目测试 → CBTL 1B 人员在 CBTL 1A 场所进行技术审核 → 主管的 NCB 职员签发 CB 测试证书

CBTL 1A 人员在 CBTL 1A 场所提供技术性客户服务 → 主管的 NCB 人员审核测试计划 → CBTL 1A 人员在 CBTL 1A 场所进行项目测试 → CBTL 1B 人员在 CBTL 1B 场所进行技术审核 → 主管的 NCB 职员签发 CB 测试证书

CBTL 1B 人员在 CBTL 1B 所列场所提供技术性客户服务 → 主管的 NCB 人员审核测试计划 → CBTL 1B 人员在 CBTL 1A 场所进行项目测试 → CBTL 1B 人员在 CBTL 1A 场所进行技术审核 → 主管的 NCB 职员签发 CB 测试证书

ANNEX 2

Reference to Publications pertaining to the Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector.

(1) Guide to the expression of uncertainty in measurement, ISO.

(2) IECEE Guide 115, Application of uncertainty of measurement to conformity assessment activities in the electrotechnical sector.

(3) NIST Technical Note 1297 – 1994, Guidelines for evaluating and expressing the uncertainty of NIST measurement results.

http://emtoolbox.nist.gov/Publications/NISTTechnicalNote1297s.pdf

(4) Tutorial & Examples Website – **National Institute of Science and Technology. Has tutorial and examples.**

http://physics.nist.gov/cuu/Uncertainty/index.html

(5) Tutorials & Examples Website – **Education with interactive tests. Has tutorial and good examples.**

http://www.etfos.hr/~fridl/index_en.htm

(6) JAB Note 4, Estimation of measurement uncertainty (electrical testing/high power testing), The Japan Accreditation Board for Conformity Assessment, 2003.

(7) Examples Website – **Examples of Uncertainty of Measurement Calculations.**

http://spiff.rit.edu/classes/phys376/uncert.html#single

附录 2
关于电工领域合格评定活动测量不确定度应用的出版物参考书目

（1）测量不确定度表述指南，ISO

（2）IECEE 导则 115，电工领域合格评定活动测量不确定度的应用。

（3）NIST 技术注解 1297-1994，评估及表述 NIST 测量结果不确定度指南。

http：//emtoolbox. nist. gov/Publications/NISTTechnicalNote1297 s. pdf

（4）教学及实例网址-国家科学技术学院。有教程和例子。

http：//physics. nist. gov/cuu/Uncertainty/index. html

（5）网址-互动测试教育。有教程和例子。

http：//www. etfos. hr/～fridl/index _ en. htm

（6）JAB 注解 4，测量不确定度的估算（电气测试/大功率测试）。

日本合格评定认可委员会，2003。

（7）实例网址-测量不确定度计算范例。

http：//spiff. rit. edu/classes/phys376/uncert. html＃single

7. Associated CB Testing Laboratories(ACTLs)to Operate with accepted CBTLs

OD-CB2015-Ed.1.3

2009-11-30

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7. 关联 CB 测试实验室（ACTL）与被认可的 CB 实验室的运作

OD-CB2015-Ed.1.3 IEC - IECEE 2009

2009-11-30

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1. Introduction

1.1 This Operational Document applies to Associated CB Testing Laboratories (ACTLs) that carry out specific and/or selected tests as part of a complete set of Type Testing required to issue a CB Test Report.

1.2 An Associated CB Testing Laboratory participates in the IECEE CB Scheme under the responsibility of a Main CB Testing Laboratory (CBTL) and its National Certification Body (NCB) that issues a CB Test Certificate based on testing performed by the ACTL and/or the CBTL.

Note: An Associated CB Testing Laboratory does not issue the CB Test Report. Only CBTLs issue CB Test Reports.

1.3 A "Main CBTL" is a fully capable CBTL for the product categories in its accepted scope. There may be more than one "Main CBTL" within the same NCB/CBTL family.

1.4 Each NCB and CBTL that contemplates the use of an Associated CB Testing Laboratory(ies) as part of its operation must comply with the criteria and requirements contained in this OD.

2. General Requirements

2.1 Associated CB Testing Laboratories must comply with the requirements of ISO/IEC 17025 and all relevant Operational Documents (ODs) of the IECEE CB Scheme.

2.2 An Associated CB Testing Laboratory is a testing facility that has a limited testing capability within its recognized scope of specific Product Categories or standards, and may need to rely upon the Main CBTL, with which it is associated, to handle tests and/or products outside its limited capabilities. The status and specific scope of the ACTL shall be within the scope of the Main CBTL with which it is associated.

2.3 There are two types of Associated CB Testing Laboratories, as follows:

a) Satellite CB Testing Laboratory

i) A laboratory that has less than the required testing capability of a fully equipped Main CBTL, i.e. equipped based on the market and customers served.
ii) A Satellite Testing Laboratory will typically possess a full or nearly full capability to perform all tests on the products that it is likely to test based on the market and customers served.
NOTE: In the context of 2.3, a), ii) related to "full or nearly full capability to perform all tests on the products that it is likely to test based on the market and customers served" means that the Satellite Testing Laboratory does not need to possess all the required equipment and capability for a particular IEC Standard; but only, that related to the actual products it is likely to test based on the market and customers served. The responsible NCB (or the Main CBTL) is responsible for knowing the equipment and capability of the Sl and, therefore, should be asking the SL to only carry out testing within its capability. This means that the SL must have a full or nearly full capability based solely on the products it is requested to test except for "hardly ever used and expensive" equipment.
In such cases, missing equipment could be:

- "Expensive and hardly ever used" equipment located at the designated Specialized Facility as described in this Operational Document.
- "Expensive and hardly ever used" equipment located at the Main CBTL and which can be easily used without interrupting the testing procedure sequence.

1. 介绍

1.1　此操作文件适用于进行出具 CB 报告所需的特定及/或全项型试试验中部分选定试验的关联 CB 测试实验室（ACTL）。

1.2　参与 IECEE CB 体系的关联 CB 测试实验室，对一主 CB 测试实验室（CBTL）及基于 ACTL 和/或 CBTL 进行的测试出具 CB 测试证书的国家认证机构负责。

注：关联 CB 测试实验室不出具 CB 测试报告。只有 CBTL 出具 CB 测试报告。

1.3　一个“主 CB 测试实验室”对其被接受范围内的产品类别应具有全项能力。在同一个 NCB/CBTL 架构中可以有多于一个的“主 CB 测试实验室”。

1.4　考虑使用关联 CB 测试实验室作为运作一部分的每一个国家认证机构和 CB 测试实验室都必须符合此操作文件的标准和要求。

2. 通用要求

2.1　关联 CB 测试实验室必须符合 ISO/IEC 17025 及 IECEE CB 体系相关操作文件的要求。

2.2　关联 CB 测试实验室是在其被接受的特定产品类别或标准范围内具备有限测试能力的测试场所，可能需要依靠其关联的主 CB 测试实验室，运作其限制能力范围外的测试和/或产品。ACTL 的范围应在其关联的主 CB 测试实验室的范围之内。

2.3　关联 CB 测试实验室有如下两种类型：

a）卫星 CB 测试实验室

ⅰ）一个测试能力小于设备齐全的主 CBTL 的实验室，即根据所服务的市场和客户来配备设备。

ⅱ）对于其市场和客户需求可能涉及的产品，一个卫星 CB 测试实验室通常拥有产品测试的全部或近乎全部能力。

注：2.3，a)，ii) 提到的“对于……拥有产品测试的全部或近乎全部能力”，指的是卫星测试实验室并不需要拥有某一 IEC 标准所需的所有设备和能力；只需拥有那些基于市场和客户服务，与实际测试的产品相关的设备和能力。对卫星测试实验室负责的国家认证机构（或主 CB 测试实验室）有责任了解其设备和能力，因此，应要求卫星实验室只操作其能力范围内的测试。这意味着卫星测试实验室必须拥有其所测试产品所需的全部或几乎全部的能力，除了“很少使用和昂贵的”设备。

在这种情况下，所缺的设备可以是：

- 此操作文件中所描述的位于指定专业设备实验室的“昂贵的和很少使用的”设备。
- 位于主 CB 测试实验室的“昂贵的和很少使用的”设备，易于被使用而且不打乱测试程序。

iii) There are two options for the Satellite Testing Laboratory relationship based on the NCB-CBTL relationship.

Option 1 - NCB and CBTLs are part of the same corporate structure
SL is controlled as part of the NCB/CBTL corporate structure, as follows:

- The NCB is responsible for managing and coordinating the activities of the SL just as it is for its CBTLs.
- The NCB may appoint one of the "Main CBTLs" (Sub-clause 3.2) to be responsible for managing and controlling the SL.

Option 2 - NCB and CBTLs are not part of the same corporate structure
SL is controlled by the NCB, as follows:

- Management and coordination of the SL is through a contractual arrangement that is equivalent to the arrangement the NCB has with its CBTLs (i.e. SL could be within or outside of the NCB's corporate structure).
- The NCB is required to carry out supervisory activities (Sub-clause 3.1) to ensure the SL's operations are in compliance with the IECEE requirements.
- With the approval of the NCB, one of the NCB's "Main CBTLs" may be appointed to manage and control the SL (Sub-clause 3.2).

iv) A Satellite Testing Laboratory is permitted to work with only one CBTL of the responsible NCB.
v) A Satellite Testing Laboratory cannot be used to cover "Required" status equipment that a CBTL does not have.

Note: The Satellite Testing Laboratory concept is particularly useful for those standards that cover a large variety of product types and which have not been sub-grouped.

b) Specialized Facility

i) A laboratory that is a dedicated testing facility conducting highly specialized testing requiring test equipment that is very expensive to procure and maintain, and might otherwise be used infrequently.
ii) A Specialized Facility can be a stand-alone facility that can be used by ALL of the CBTLs of a responsible NCB(s).
iii) A Specialized Facility is accepted by the IECEE to carry out specific types of tests that are common to a number of product standards.
iv) A Specialized Facility can be within (i.e. a part of) a fully capable CBTL that can be used by ALL of the CBTLs of a responsible NCB.
v) A Specialized Facility can cover "Required" status equipment that the Main CBTL does not have provided that the concept of Specialized Facilities according to this OD is fully maintained.
vi) The NCB, or its Main CBTL, must be able to demonstrate full control of the Specialized Facility.
vii) There are two options for the NCB-Specialized Facility (SF) relationship based on the NCB-CBTL relationship.

Option 1 - NCB and CBTLs are part of the same corporate structure
SF is controlled as part of the NCB/CBTL corporate structure, as follows:

- The NCB is responsible for managing and coordinating the activities of the SF just as it is for its CBTLs.
- The NCB may appoint one of the "Main CBTLs" (Sub-clause 3.2) to be responsible for managing and controlling the SF.

Option 2 - NCB and CBTLs are not part of the same corporate structure
SF is controlled by the NCB, as follows:

ⅲ）基于 NCB-CBTL 关系，卫星测试实验室的关系有两种选择。

选择 1　NCB 和 CBTL 同属一公司结构

卫星实验室（SL）被作为 NCB/CBTL 公司结构的一部分进行控制，情况如下：

- 如同对 CBTL 一样，NCB 负责对 SL 活动的管理和协调。
- NCB 可以指定“主 CB 测试实验室”（条款 3.2）中的一个，负责管理和控制 SL。

选择 2　NCB 和 CBTL 不属同一公司结构

卫星实验室由 NCB 控制，情况如下：

- 通过协议实现对 SL 的管理和协调，与 NCB 对其 CB 测试实验室的管理一样（即：SL 可以在 NCB 的公司结构之内或之外）。
- NCB 需实行监督（条款 3.1）以保证 SL 的运作符合 IECEE 的要求。
- 取得 NCB 的批准后，NCB 的“主 CBTL”中的一个可被指定去管理和控制 SL（条款 3.2）。

ⅳ）一个卫星测试实验室只允许为对其负责的 NCB 中的一个 CBTL 工作。

ⅴ）卫星测试实验室不能用于覆盖 CBTL 没有“必需”设备的情况。

注：卫星测试实验室这一概念对于那些涵盖大量产品类型且没有分小类的标准特别有用。

b）专门设备实验室

ⅰ）一个专门从事高度专业测试的实验室，这些测试所需设备的购买及保养是非常昂贵的，但又可能较少被使用。

ⅱ）专门设备实验室可以是一独立的设施，可被 NCB 中的所有 CBTL 使用。

ⅲ）专门设备实验室被 IECEE 所认可，进行一些特殊类型的测试，这些测试是一些产品标准共有的。

ⅳ）专门设备实验室可以在一拥有全项能力的 CBTL 内（即是其一部分），可被 NCB 下所有 CBTL 所使用。

ⅴ）若此操作文件中规定的专门设备实验室的概念得以完全执行，则专门设备实验室可以涵盖主 CBTL 没有的“必需”设备。

ⅵ）NCB 或其主 CBTL 必须可以证明对专门设备实验室的全权控制。

ⅶ）基于 NCB-CBTL 的关系，NCB-专门设备（SF）实验室的关系有两种选择。

选择 1　NCB 和 CBTL 同属一公司结构

SF 作为 NCB/CBTL 公司结构的一部分受控制，情况如下：

- 如同对 CBTL 一样，NCB 负责管理和协调 SF 的活动。
- NCB 可以指定其中一个“主 CBTL”（条款 3.2）负责管理和控制 SF。

选择 2　NCB 和 CBTL 不属同一公司结构

SF 受 NCB 控制，情况如下：

- Management and coordination of the SF is through a contractual arrangement that is equivalent to the arrangement the NCB has with its CBTLs (i.e. SF could be within or outside of the NCB's corporate structure).
- The NCB is required to carry out supervisory activities (Sub-clause 3.1) to ensure the SF's operations are in compliance with the IECEE requirements
- With the approval of the NCB, one of the NCB's "Main CBTLs" may be appointed to manage and control the SF (Sub-clause 3.2).

viii) A Specialized Facility may also support other CBTLs and their associated Satellite Testing Laboratories working with the same NCB.

ix) A Specialized Facility can cover a test or a sequence of tests as part of an overall testing program, providing there is no disruption to the test sequence as required by the standard.

Note 1: A Specialized Facility might be expected to have the following types of testing equipment:

- Extra-large environmental testing chambers
- Electromagnetic testing facilities and equipment
- IP testing equipment
- Mechnaical testing equipment (i.e. vibration, extensive impact)
- Corrosion testing equipment
- X-Radiation, microwave and Ultraviolet (UV) measuring equipment
- Ultrasonic and sound pressure level measuring equipment
- Laser measuring equipment
- High capacity short-circuit testing equipment
- Resistance to heat and fire testing equipment
- Thermoplastics testing equipment (i.e. short-term property evaluations, long-term property evaluations, polymeric materials used in electrical equipment evaluations, industrial laminates, vulcanized fiber, materials used for printed wiring boards, filament wound tubing, flexible dielectric film materials, flammability, tracking, hot-wire ignition)
- High-vacuum devices testing equipment (e.g. IEC 60065)

Note 2: Any testing sequences that cannot be separated, such as humidity testing followed by dielectric testing, must be carried out as a suite of tests as required by the standard.

Note 3: Note 2 does not suggest that humidity testing facilities may be completely omitted from the Main CBTL.

Note 4: Where a Main CBTL does not possess some major, expensive, specialized and required ("R") test equipment that is available at the Specialized Facility used by this Main CBTL, this relationship is not considered subcontracting.

2.4 The qualification criteria for an Associated CB Testing Laboratory are the same as applicable to a CBTL, but are applied as appropriate to its limited scope and capabilities. Well-functioning quality management systems and continuous exchange of information between the Main CBTL and its Associated CB Testing Laboratory are the necessary pre-requisites for acceptance.

2.5 The geographic location of the Associated CB Testing Laboratory in relation to the location of the Main CBTL must permit an effective completion of the required full test program for the products within the scope of these laboratories. Specifically, the shipment of test samples between the testing facilities must not present undue difficulties for routine test programs.

Note: This applies particularly to Specialized Facilities.

- 通过协议实现对 SF 的管理和协调，与 NCB 对其 CB 测试实验室的管理一样（即：SF 可以在 NCB 的公司结构之内或之外）。
- NCB 需实行监督（条款 3.1）以保证 SF 的运作符合 IECEE 的要求。
- 取得 NCB 的批准后，NCB 的"主 CBTL"中的一个可被指定去管理和控制 SF（条款 3.2）。

ⅷ）专门设备实验室可以支持在同一个 NCB 下的其他 CBTL 和它们的关联卫星测试实验室。

ⅸ）只要不打乱标准要求的测试顺序，专门设备实验室可以进行一个或一系列测试，作为整体测试程序的一部分。

注 1：专门设备实验室可能会有以下类型测试设备：
- 巨型环境试验箱；
- 电磁兼容测试设施及设备；
- IP 试验设备；
- 机械测试设备（即振动、大冲击）；
- 腐蚀测试设备；
- X 射线、微波及紫外线辐射（UV）测量设备；
- 超声波和声压等级测量设备；
- 激光测量设备；
- 大容量短路测试设备；
- 阻热防火测试设备；
- 热塑测试设备（即短效特性评估、长效特性评估、电子设备用塑料材质评估、工业层压板、硫化纤维、印刷板材、绕丝灯管、介膜质材料曲挠、可燃性、漏电起痕、灼热丝点燃）；
- 高真空设施测试设备（如：IEC 60065）。

注 2：任何不可被隔断的测试顺序，比如潮湿试验及其后的耐压试验，必须按标准要求进行整套测试。

注 3：备注 2 不是主张主 CBTL 可以完全不具备潮湿测试设施。

注 4：当主 CBTL 没有一些主要的、昂贵的、专业的和必需的（"R"）测试设备，而其使用的专门设备实验室有这些设备，这种关系不被认为是分包。

2.4　关联 CB 测试实验室的资格判定标准同 CBTL，但只适用于其有限的范围和能力。完善的质量管理体系及主 CBTL 和其关联 CB 测试实验室之间信息的持续交流是被接受的必要前提条件。

2.5　关联 CB 测试实验室和主 CBTL 的地理位置关系，必须保证在这些实验室范围内产品的完整测试程序的有效完成。需明确的是，测试样品在测试设施间的传递运输不可导致常规测试计划出现不应有的困难。

备注：此项特别适用于专门设备实验室。

The location of Associated CB Testing Laboratory must also permit its assessment and re-assessment at the same time as and in conjunction with the assessment or re-assessment of the Main CBTL.

2.6 The technical competence to carry out testing activities is checked against ISO/IEC 17025 and the relevant IEC Standards, or parts thereof, for which the Associated Testing Laboratory is seeking acceptance.

3. Responsibilities

3.1 Responsibilities of the NCB

- Over-viewing operations of its Associated CB Testing Laboratory(ies) on an ongoing basis in cooperation with its Main CBTL(s).
- Over-viewing required training of its Associated CB Testing Laboratories on an ongoing basis in cooperation with its Main CBTL(s).
- Auditing (initially and once per year thereafter) each Main CBTL and each Associated CB Testing Laboratory in accordance with ISO/IEC 17025, including technical scope and quality management system.

Note: According to ISO/IEC Guide 65, Sub-clause 4.7 (Internal audits and management reviews)

- Ensuring that the Associated CB Testing Laboratory(ies) participate(s) in CTL Proficiency Testing Program as applicable to its limited scope.
- Ensuring that the Main CBTL is in full control of its Associated CB Testing Laboratory(ies) and that it does not lose its technical capability over time. This shall be confirmed and documented during the NCB's audits of the Main CBTL's and the Associated CB Testing Laboratory's operations.

3.2 Responsibilities of the Main CBTL

- Training the Associated CB Testing Laboratory(ies) for which it is responsible as appointed by the Responsible NCB on an ongoing basis in the operation and procedures of the IECEE Scheme.
- Establishing the technical competence of the laboratory.
- Participating in the NCB's audits or auditing (on NCB's behalf) of the Associated CB Testing Laboratory(ies) for which the Main CBTL is responsible.
- Carrying out a review of test reports and/or partial test reports prepared by the Associated CB Testing Laboratory(ies) for which it is responsible.
- Arranging all other required tests that are not performed at the Associated CB Testing Laboratory(ies).
- Compiling and issuing the CB Test Report based on the tests conducted by its Associated CB Testing Laboratory(ies) and its own tests.
- Coordinating participation of its Associated CB Testing Laboratory(ies) with its own CTL Proficiency Testing Programs (as applicable to the Main CBTL's scope and that of the ACTL).
- Issue the CB Test Report; however, each testing location must be identified along with the tests carried out at each location.

3.3 Responsibilities of the Associated CB Testing Laboratory

- Operating in compliance with the requirements of ISO/IEC 17025 and the IECEE Rules of Procedure, IECEE 02.
- Appointing an appropriate person to be responsible for the facilities and/or services provided to the Main CBTL and its Responsible NCB.

关联 CB 测试实验室的地点需使其评审及复评审与主 CBTL 同时同步进行。

2.6 按照 ISO/IEC 17025 和相关 IEC 标准或其中的部分核查关联 CB 测试实验室操作测试的技术能力。

3. 职责

3.1 NCB 的职责

- 和主 CBTL 合作，持续监督关联 CB 测试实验室的运作。
- 和主 CBTL 合作，持续监督关联 CB 测试实验室所需的培训。
- 根据 ISO/IEC 17025，审核每一个主 CBTL 和每一个关联 CB 测试实验室（初审及其后每年一次），包括其技术范围和质量管理体系。

注：根据 ISO/IEC 导则 65，条款 4.7（内审和管理评审）

- 确保关联 CB 测试实验室在其适用的有限范围内参加 CTL 能力验证测试项目。
- 确保主 CBTL 完全控制其关联 CB 测试实验室，其技术能力不会因时间流逝而缺失。此项应在 NCB 对主 CBTL 和关联 CB 测试实验室运作的审核中得到证实并加以记录。

3.2 主 CBTL 的职责

- 按照 NCB 的委派，对关联 CB 测试实验室进行有关 IECEE 体系的运作和程序的培训。
- 建立实验室的技术能力。
- 参与 NCB（或代表 NCB）对关联 CB 测试实验室的评审。
- 对其负责的关联 CB 测试实验室所准备的整份或部份测试报告进行审核。
- 安排其他所有未在关联 CB 测试实验室进行的测试。
- 基于其关联 CB 测试实验室与其本身进行的测试，编写出具 CB 测试报告。
- 协调其关联 CB 测试实验室参加其 CTL 能力验证测试计划（主 CBTL 和 ACTL 的相关范围）。
- 出具 CB 测试报告，但在各个地点进行的测试需标示出测试地点。

3.3 关联 CB 测试实验室的职责

- 按照 ISO/IEC 17025 和 IECEE 程序规则，IECEE 02 运作。
- 指定适当的人员对提供给主 CBTL 及其责任 NCB 的设施和/或服务负责。

- Ensuring that all tests are carried out and reported to the Main CBTL in accordance with the applicable technical requirements and the instructions of the Main CBTL.
- Participating in applicable CTL Proficiency Testing Programs according to its limited scope.

Note: An Associated CB Testing Laboratory does not issue CB Test Reports; however, each testing location must be identified along with the tests carried out at each location.

4. Conditions Concerning Affiliation with the Main CBTL

4.1 A Satellite Testing Laboratory as described in Sub-clause 2.3 a) shall operate in the IECEE CB Scheme with only one Main CBTL and one NCB in a specific product category.

4.2 A Specialized Facility as described in Sub-clause 2.3 b) shall be permitted to participate in the IECEE Scheme with more than one CBTL associated with one NCB. A Specialized Facility shall not be permitted to participate in the CB Scheme for more than one NCB.

4.3 Qualification of an Associated CB Testing Laboratory

4.3.1 The NCB shall initiate the evaluation of the ACTL and the Main CBTL arrangement and competence, which typically should include the following steps:

4.3.2 Initial evaluation of the Quality System and Procedures employed by both the Main CBTL and the ACTL.

4.3.3 Initial evaluation of the general competence of the ACTL in testing for conformity assessment.
4.3.4 Review and endorsement of any previous recommendation by the Main CBTL for the competence of the ACTL staff to perform tests within the specified limited scope.

4.3.5 Any additional training of technical staff at the Main CBTL and the ACTL as determined by the NCB's assessment.

5. Assessment by the IECEE

5.1 Associated CB Testing Laboratories are subject to the same assessment and acceptance procedure as CBTLs.

5.2 A formal initial assessment of the candidate Associated CB Testing Laboratory and a "partial" assessment, as appropriate, of the Main CBTL shall be carried out by the IECEE Assessment Team in accordance with IECEE 02 Sub-clause 5.3 and the applicable Operational Documents.

5.2.1 All parties responsible for managing, controlling and coordinating the activities of the ACTL shall be assessed to the necessary extent during the process of assessing the ACTL.

5.3 The initial assessment of an Associated CB Testing Laboratory can be carried out on a "stand-alone" basis without a "partial" assessment of the Main CBTL when the Main CBTL has been previously assessed or reassessed within the 3-year reassessment cycle and accepted to operate in a determined Scope [product category(ies)] through an on-site assessment carried out earlier. The relevant procedures implemented by the Main CBTL for the oversight and control of the Associated CB Testing Laboratory (Satellite CB Testing Laboratory or Specialized Facility) shall be available for review and acceptance by the Assessment Team.

- 确保所有测试和报告依照主 CBTL 适用的技术要求和指导而进行。
- 根据其限制范围参与 CTL 能力验证计划。

注：关联 CB 测试实验室不出具 CB 测试报告。但在各个地点进行的测试需标示出测试地点。

4. 依附于主 CBTL 的条件

4.1　如条款 2.3 a）中所描述的卫星测试实验室，在一个特定的产品类别，应当只与 IECEE CB 体系中的一个主 CBTL 和一个 NCB 进行合作。

4.2　如条款 2.3 b）中所描述的专门设备实验室，允许服务于同一 NCB 中的多个 CBTL。专门设备实验室不允许同时与 CB 体系中的多个 NCB 合作。

4.3　关联 CB 测试实验室的资格

4.3.1　NCB 应对 ACTL 和主 CBTL 的安排和能力进行评估，主要包括以下步骤：

4.3.2　对主 CBTL 和 ACTL 质量体系和程序文件的初始评估。

4.3.3　对 ACTL 进行合格评定测试的整体技术能力的初始评估。

4.3.4　针对主 CBTL 以前对 ACTL 人员在其专业限制范围内测试能力的推荐意见的审核和认同。

4.3.5　NCB 评审要求增加的对主 CBTL 和 ACTL 技术人员的培训。

5. IECEE 评审

5.1　关联 CB 测试实验室适用与 CBTL 一样的评审和接受程序。

5.2　IECEE 评审组根据 IECEE 02 条款 5.3 和适用的操作文件对候选关联 CB 测试实验室进行正式初审，并在适当时，对主 CBTL 进行“部分”评审。

5.2.1　评审 ACTL 的过程中，负责管理、控制和协调 ACTL 活动的各方应在必要的程度上受审。

5.3　当主 CBTL 之前已进行过评审或 3 年一次的复评审，并通过之前的现场评审已确定被接受的范围（产品类别），则关联 CB 测试实验室可“单独”进行初审无需对主 CBTL 进行“部分评审”。主 CBTL 监督和控制关联 CB 测试实验室（卫星 CB 测试实验室或专门设备实验室）执行的相关程序，应可被评审组审阅及接受。

5.4 Any further assessment (re-assessment, scope extension, etc.) of the Associated CB Testing Laboratory that is related to the Scope of both the responsible Main CBTL and the Associated CB Testing Laboratory, regardless of the distance between them and their location, will take place at the same time as and in conjunction with the assessment or reassessment of the responsible Main CBTL.

5.5 Assessment Time Frame, Size and Composition of the Assessment Team

a) For a Satellite Testing Laboratory, the time frame, size and composition of the Assessment Team will follow the guidelines as used for assessment of CBTLs.

b) Specialised Laboratories are, by definition, special. Therefore, the assessment team expertise is critically important and is currently verified by the IECEE Secretariat during the selection of the Technical Assessor(s). Once the expertise properly covers the scope of the Specialized Laboratory, the assessment team can determine the timeframe of the assessment. That "model" is then recorded in the IECEE Secretariat database to make sure that next time with another applicant body, there will be "equal treatment" and transparency.

5.6 Upon successful completion of the IECEE Peer Assessment, an ACTL is registered as an accepted Satellite CB Testing Laboratory or an accepted Specialized Facility for the relevant limited scope, under the responsibility of its NCB.

5.7 An ACTL is subject to the same application and assessment fees as the Main CBTL.

6. Supervision of an Associated Laboratory's Operations

6.1 The involvement of the Main CBTL in the ACTL operations, as directed by the responsible NCB, is essential for the credibility of the ACTL Procedure as described in this Operational Document.

6.2 The NCB and/or the Main CBTL shall maintain adequate technical overview of all testing work carried out by the ACTL, including training, periodic audits, comparison testing, examination of test samples, and ongoing review of test reports.

7. CB Test Reports

7.1 Test reports are compiled and issued by the Main CBTL. Where an ACTL carries out a full testing program and prepares a draft CBTR for review by the Main CBTL, the CB Test Report shall carry the signatures of the ACTL and of the issuing CBTL.

7.2 The CB Test Report shall contain information regarding which tests were conducted at the ACTL(s) and which at the Main CBTL (if any). This information shall be added to the "Summary of testing" or "General product information" area of the CB Test Report.

5.4　同时涉及责任主 CBTL 和关联 CB 测试实验室范围，而对关联 CB 测试实验室进行的任何进一步的评审（复评审、扩项等），无论它们之间距离多远，都应连同责任主 CBTL 的评审或复评审同时进行。

5.5　评审时间、规模和评审组的组成

a）对于卫星 CB 测试实验室，其评审时间、规模和评审组的组成，应依照用于 CBTL 评审的导则。

b）专门实验室根据定义是专业的。因此，评审组的专业性至关重要，通常通过在 IECEE 秘书处挑选技术评审员来实现。一旦专业性能适当地覆盖专业实验室的范围，评审组可以决定评审的时间。这个“模式”将记录于 IECEE 秘书处数据库，以确保下次对其他申请机构也采用“同等待遇”和保持透明度。

5.6　IECEE 评审成功结束后，ACTL 在其限制范围内，注册为被接受的卫星 CB 测试实验室或专门设备实验室，NCB 对其负责。

5.7　ACTL 的申请费和评审费同主 CBTL。

6. 关联实验室运作的监督

6.1　为了本操作文件中所述的 ACTL 的运作程序的可靠性，在负责的 NCB 指导下，主 CB 测试实验室参与 ACTL 的运作是必不可少的。

6.2　NCB 和/或主 CBTL 应保持对 ACTL 所有测试工作的充分技术监督，包括培训、周期核查、比对测试、测试样品核查和测试报告的持续审核。

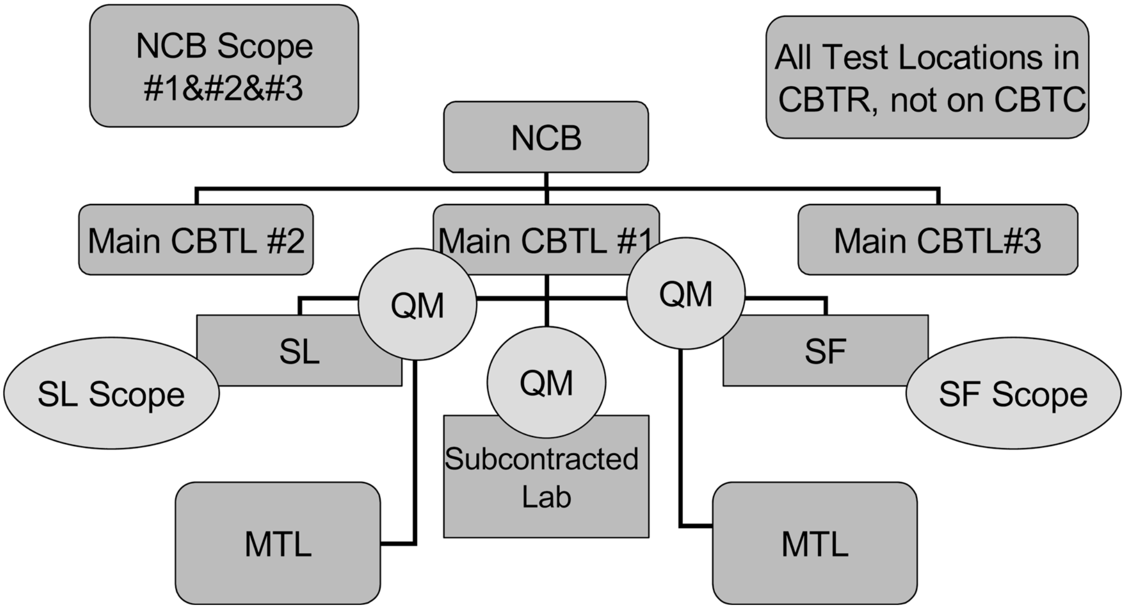
7. CB 测试报告

7.1　测试报告由主 CBTL 编写和出具。当 ACTL 进行全部测试程序并准备 CB 测试报告草稿以供主 CBTL 审查时，此 CB 测试报告需有 ACTL 和发放 CBTL 的签名。

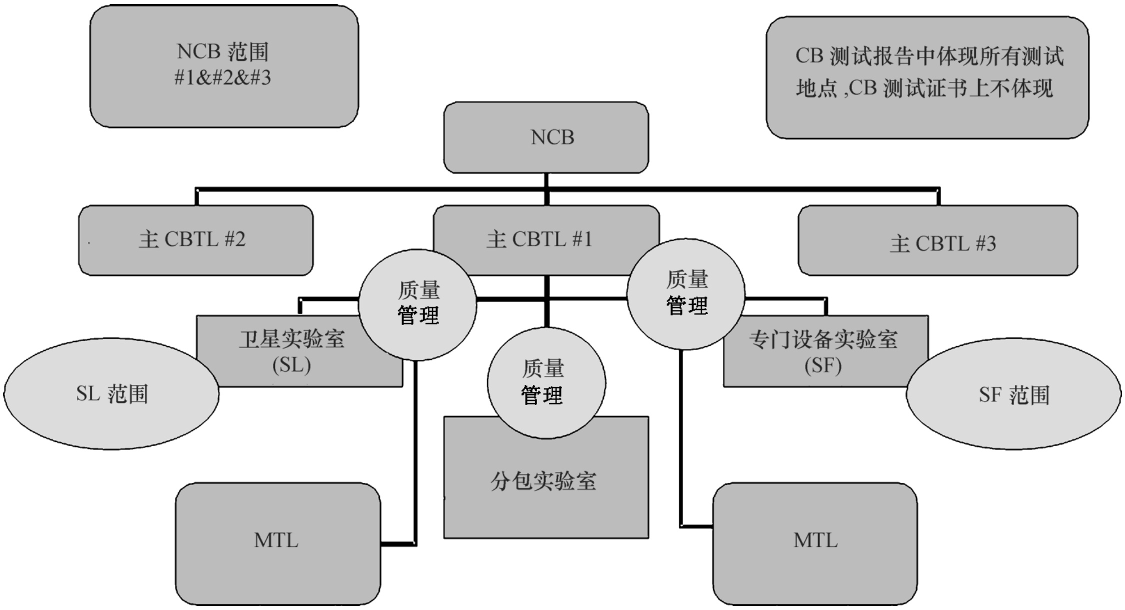
7.2　CB 测试报告应包含关于哪些测试在 ACTL 进行，哪些在主 CBTL 进行（若有）的信息。这一信息应添加在 CB 测试报告中的“测试概要”或“通用产品信息”部分。

ANNEX 1

Associated CB Testing Laboratories
Satellite Laboratories and Specialized Facilities
Within the Structure of the IECEE CB Scheme

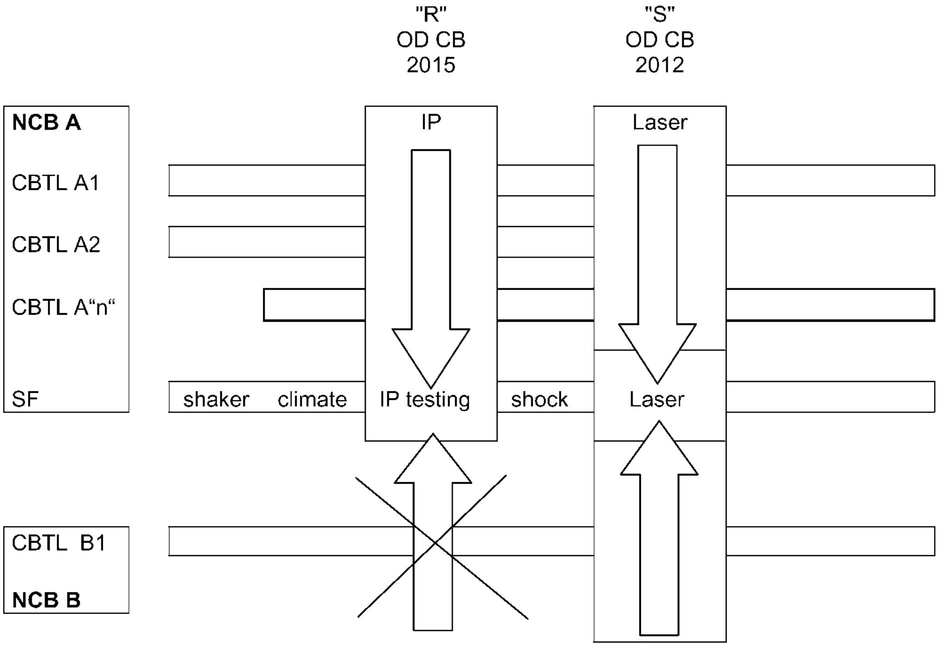


附录 1
关联 CB 测试实验室
IECEE-CB 体系结构中的卫星实验室和专门设备实验室



ANNEX 2

Use of Specialized Facilities as Compared to Subcontracting



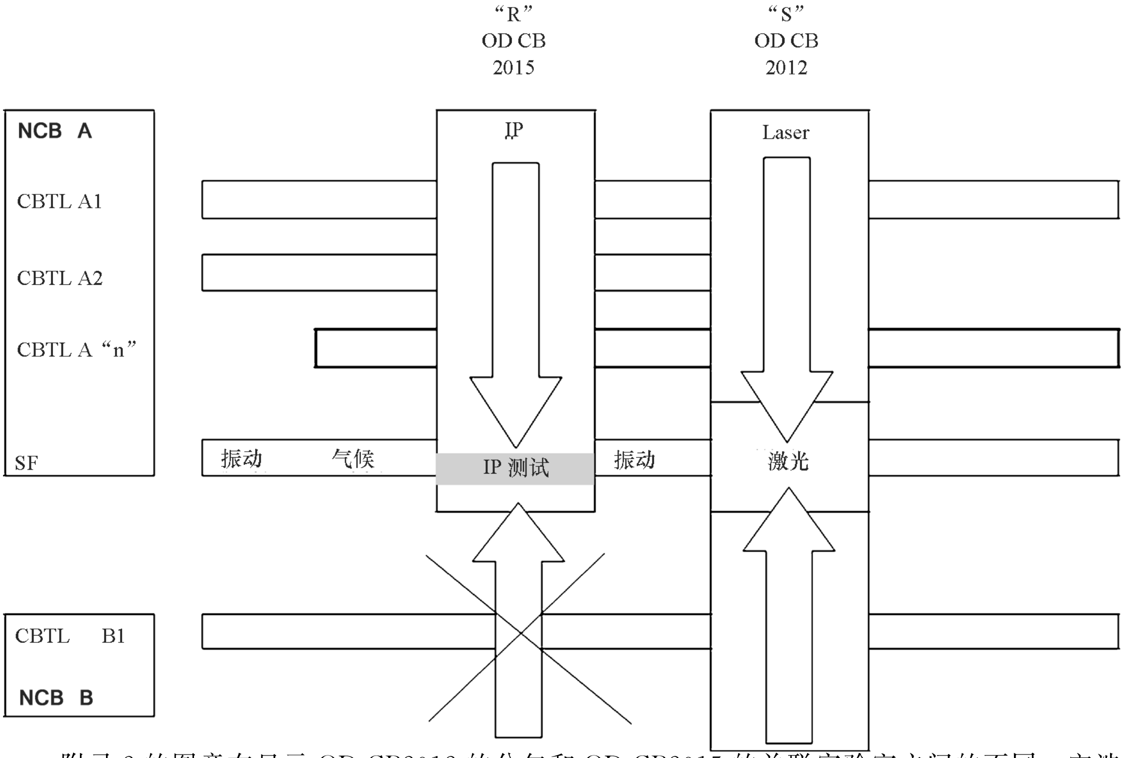
The diagram in Annex 2 is intended to demonstrate the difference between subcontracting according OD-CB2012 and Associated Laboratories according OD-CB2015. It refers to two independent groups of NCB/CBTL combinations that are not linked at a corporate level.

The upper part of the diagram shows an NCB A with its associated CBTLs A1 to A"n". The lower part of the diagram shows a different NCB B with an associated CBTL B1.

The horizontal boxes indicate the respective scopes of the CBTLs.
The Specialized Facility, SF, is associated with NCB A as the only possible relationship according to OD-CB2015. The SF carries out the specialized tests for the "n" CBTLs of NCB A, indicated by the arrow pointing to IP testing.

The same IP testing cannot be accepted by the SF from CBTL B.
However, with subcontracting permitted according to OD-CB2012, the laboratory (acting as SF for NCB A and its associated CBTLs) may accept subcontracting from CBTL B (e.g. laser in category OFF).

附录 2
使用专门设备实验室与分包的比较



附录 2 的图意在显示 OD-CB2012 的分包和 OD-CB2015 的关联实验室之间的不同。它涉及在公司层面没有联系的两个独立 NCB/CBTL 群组之间的组合关系。

图的上半部分表示一个 NCB A 及其相关 CBTL A1 至 A "n"。下半部分表示另一个 NCB B 及其相关 CBTL B1。

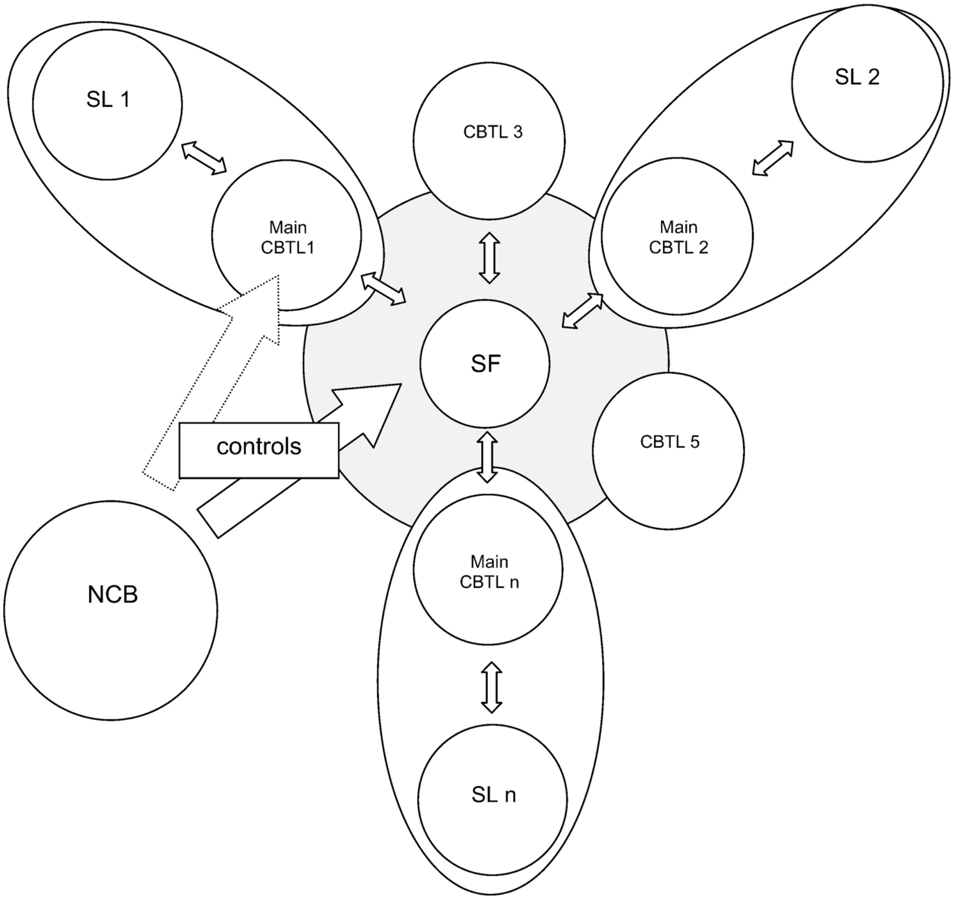
水平方向的格子表示 CBTL 各自的范围。

专门设备实验室、SF，根据 OD-CB2015 只可能与 NCB A 关联。SF 为 NCB A 的 "n" 个 CBTL 进行专业测试，如指向 IP 测试的箭头所示。

SF 不能接受 CBTL B 所委托的同样的 IP 试验。

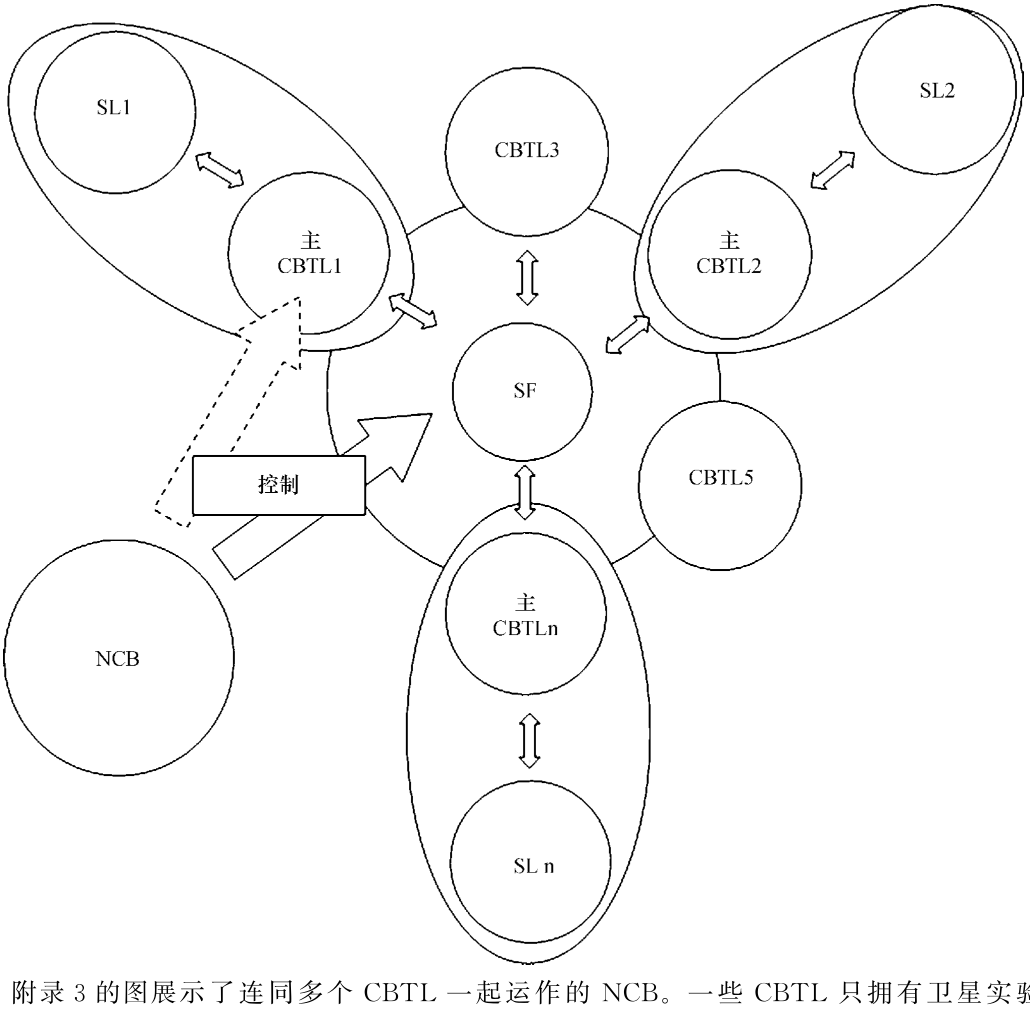
但是，根据 OD-CB2012 所允许的分包，实验室（作为 NCB A 与其相关 CBTL 的 SF）可以接受 CBTL B 的分包（例如 OFF 产品类别的激光）。

ANNEX 3
Possible NCB, CBTL, SL and SF Relationships



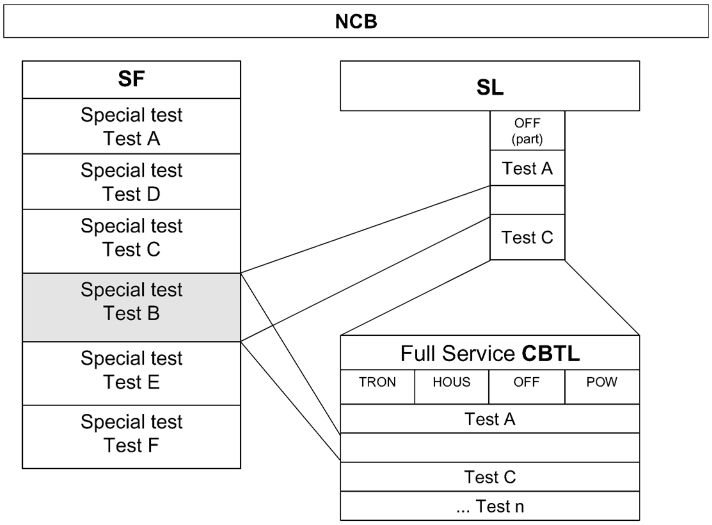
The diagram in Annex 3 is intended to show one NCB operating with several CBTLs. Some of the CBTLs have Satellite Laboratories (SLs) only, e.g. SL 1 only works with CBTL1 but not with CBTL 2. The Specialized Facility (SF) is allowed to work with all CBTLs under the control of the NCB. The NCB has control and responsibility over the SF, and may, however, delegate this task to one appointed CBTL (e.g. CBTL 1), which then acts as the Main CBTL, e.g. being assessed together with the SF at the same time. CBTL 3 does not have a satellite laboratory, but a connection to the SF, while CBTL 5 does not have a satellite laboratory and does not use the SF.

附录 3
NCB、CBTL、SL 和 SF 可能存在的关系



附录 3 的图展示了连同多个 CBTL 一起运作的 NCB。一些 CBTL 只拥有卫星实验室（SL），如：SL 1 只为 CBTL 1 工作，但不服务于 CBTL 2。允许专门设备实验室在 NCB 控制下为所有 CBTL 工作。NCB 对 SF 有控制权并负有责任，可以将此委派给一个指定的 CBTL（如 CBTL 1），由其扮演主 CBTL 的角色，如与 SF 在同一时间接受评审。CBTL 3 没有卫星实验室，但与 SF 有联系，而 CBTL 5 则既没有卫星实验室也没有使用 SF。

ANNEX 4
Example of CBTL, SF and SL Test Services and the Responsible NCB



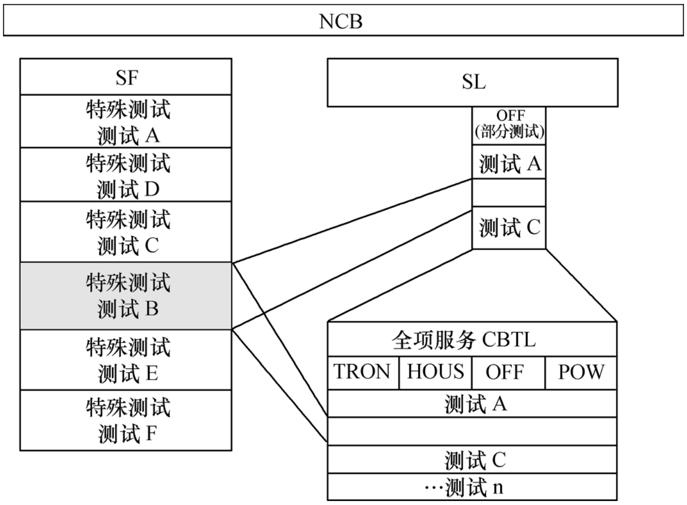
The diagram in Annex 4 shows an NCB under a common corporate umbrella with three entities all within the scope of OD-CB2015, as follows:

- A full-service CBTL with the accepted product categories of TRON, HOUS, OFF and POW. This full-service CBTL is able to perform all the necessary tests required by the relevant standards as indicated from Test A to Test n. These tests might be “generic” like temperature rise or specialized to a certain product category.
- A satellite laboratory to the CBTL above. It has only capability for a part of category OFF (e.g. just power supplies) and can as such cannot become a CBTL and therefore acts as Satellite Laboratory under the CBTL having the full scope of OFF.
- The Specialized Facility (SF) has in this example the capability for five types of tests, indicated as Test A to Test F. Test B could e.g. “environmental simulation and testing” which includes any type of climatic chambers, IP testing (water and dust).

Both laboratories – the CBTL and the associated Satellite Laboratory – have to consider the investment into this required (“R”) type of test, maintain the equipment and the capability to operate it. It is the economic decision of the company under which the NCB and these laboratories operate, to concentrate this type of test into the “Specialized Facility” according to OD-CB2015. According to the above diagram both labs – the CBTL and the Satellite Laboratory – are handing over the Test B to be performed in the Specialized Facility.

Note: The Diagrams in Annexes 2, 3 and 4 were prepared by Dr. Wolfgang Kreinberg, Member of WG 16.

附录 4
CBTL、SF 和 SL 测试服务和责任 NCB 的示例



附录 4 的图展示了一个共同的公司结构下，NCB 连同 3 个在 OD-CB2015 范围内的实体：

- 被接受产品类别包括 TRON、HOUS、OFF 和 POW 的全项服务的 CBTL。此全项服务的 CBTL 可以进行相关标准所要求的全部必要的测试，以测试 A 至测试 n 表示。这些测试可以是像温升那样的“普通”测试，或者是针对特定产品类别的专业测试。
- 上述 CBTL 的卫星实验室只拥有类别 OFF 的部分能力（如只有电源），因此不能成为 CBTL，只能作为拥有 OFF 全项范围的 CBTL 的卫星实验室。
- 专门设备实验室（SF）在此示例中拥有五类测试能力，如测试 A 至测试 F 所示。例如测试 B 可能是包括任何类型的气候箱，IP 测试（防水和防尘）的“环境模拟和测试”。

CBTL 和关联卫星实验室这两者都要考虑对必需（“R”）类型设备的投资维护和运行能力。根据 OD-CB2015，将此类型测试集中到“专门设备实验室”去操作，对于 NCB 和这些实验室所在的公司来说是一个经济的决策。根据以上图示，CBTL 和卫星实验室都将测试 B 移交予专门设备实验室去操作。

注：附件 2、3 和 4 的图示由工作组 16 的成员，Wolfgang Kreinberg 博士所制。

IECEE

CB-SCHEME **OD-CB2027-Ed.2.2**

OPERATIONAL & RULING DOCUMENTS

8. Use of Manufacturers' Testing Laboratories: General Principles

OD-CB2027-Ed.2.2 **IEC - IECEE 2007 - Copyright**

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IECEE

CB体系 **OD-CB2027-Ed.2.2**

操作和规则文件

8. 制造商测试实验室的使用：通用原则

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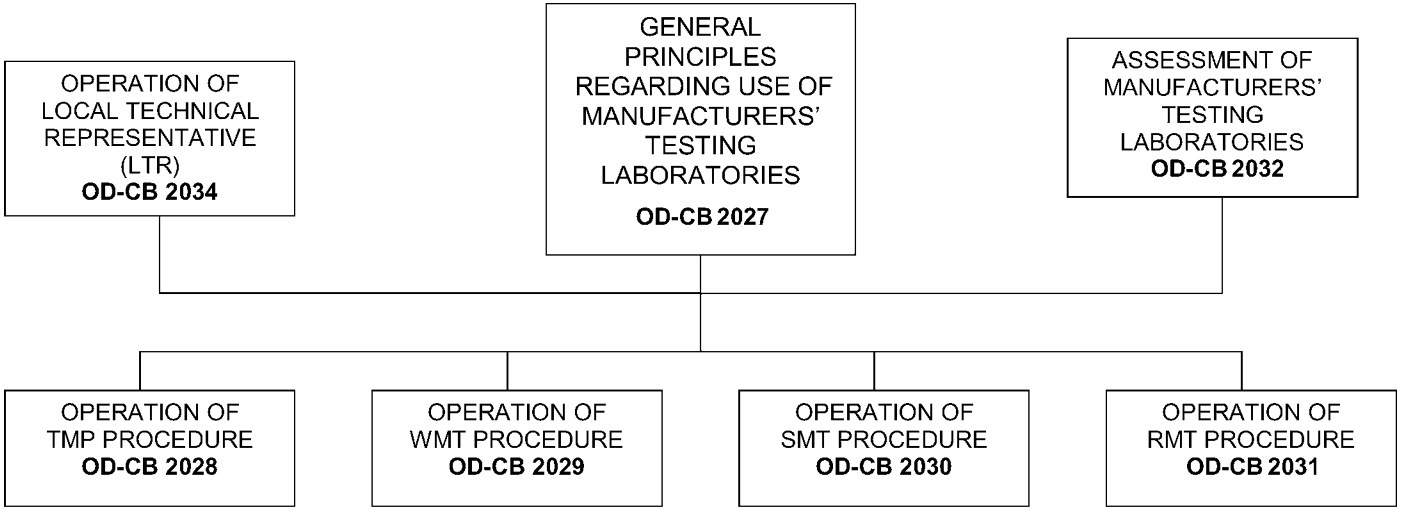
FRAMEWORK FOR DOCUMENTATION COVERING THE USE OF MANUFACTURERS' TESTING LABORATORIES



IEC-IECEE 2007

使用制造商测试实验室的文件框架

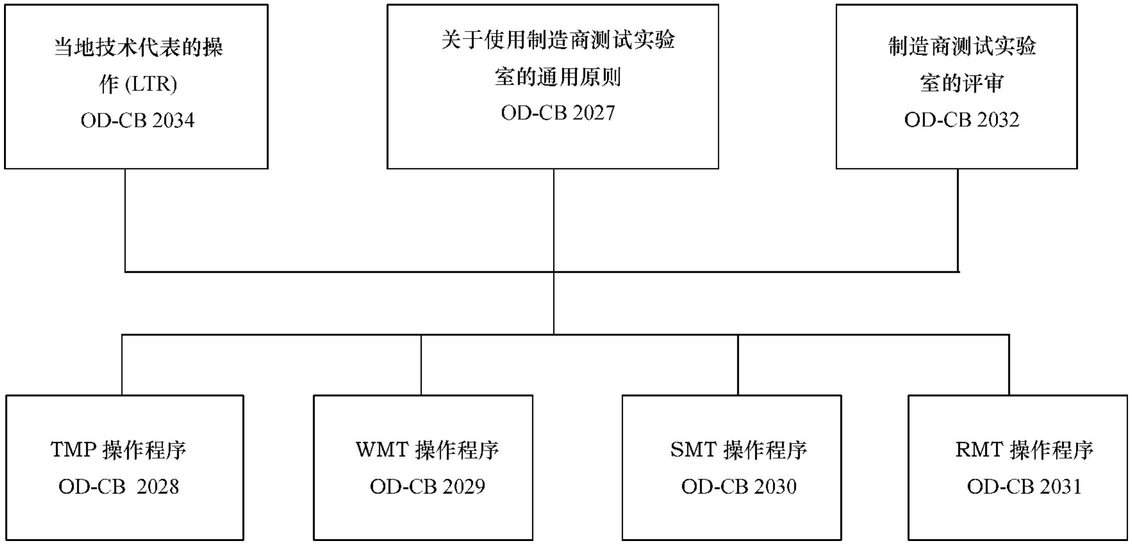


Table of Comparison of Programmes for CBTL,TMP,WMT,SMT and RMT

Laboratory Type	CBTL	TMP	WMT	SMT	RMT
Testing Location	CBTL	Manufacturer	Manufacturer	Manufacturer	Manufacturer
Definitions (who is doing the work)	A laboratory successfully assessed within CB Scheme performs all necessary tests with own equipment in own facilities	A representative of an accepted CBTL, under the responsibility of its NCB performs the full test in a manufacturer's laboratory with its own or the manufacturer's equipment	O witnesses all tests done by a manufacturer's laboratory which uses its own equipment	A representative of an accepted NCB or an accepted CBTL, on request of an NCB, supervises the quality management system and the laboratory testing processes and witnesses some part of each agreed testing program at a manufacturer's laboratory, which uses its own equipment.	A representative of an accepted NCB or an accepted CBTL, on request of an NCB, assesses initially and on an on-going basis the capability and expertise of the manufacturer's laboratory according to ISO/IEC 17025 and any other relevant IECEE Operational Documents, including the laboratory's quality management system and the laboratory's testing processes. RMT may be supervised by a registered LTR under the responsibility of a NCB. An LTR may conduct initial assessment only if employed within the same corporate.
Signature: Tested by *	CBTL	CBTL	Manufacturer	Manufacturer	Manufacturer
Signature: Witnessed by*	none	none	NCB or CBTL	none	none

CBTL、TMP、WMT、SMT 和 RMT 程序对比表

实验室类型	CBTL	TMP	WMT	SMT	RMT
测试场地	CBTL	制造商	制造商	制造商	制造商
定义 （谁进行测试）	成功地通过CB体系评审并能用自己的设备在自己的场地完成所有必要的测试的实验室	被认可的CBTL的代表，在它的NCB授权下，用自己的或制造商的设备在制造商测试实验室完成所有的测试	目击制造商测试实验室使用自己的设备完成所有测试	被认可的NCB或CBTL的代表，在NCB的要求下，监督制造商实验室的质量管理体系和实验室测试程序，并目击制造商实验室使用自有设备完成每个已协商同意的测试计划的部分项目	被认可的NCB或CBTL的代表，在NCB的要求下，根据ISO/IEC 17025和任何其他相关的IECEE操作文件，包括制造商实验室质量管理体系和实验室测试程序，对制造商实验室的能力和专业水平进行初次评审和持续监督，RMT可以由一个NCB授权下注册的LTR进行监督，LTR只有当在同一公司内被雇佣时才可以进行初次评审
“试验”* 签字人：	CBTL	CBTL	制造商	制造商	制造商
“目击”* 签字人：	无	无	NCB或CBTL	无	无

Laboratory Type	CBTL	TMP	WMT	SMT	RMT
Signature: Authorized (Reviewed and Approved) by*	CBTL	CBTL	NCB or CBTL	Manufacturer	Manufacturer
Signature: Supervised by*	none	none	none	NCB or CBTL by delegation	NCB or CBTL by delegation
Signature: CB Certificate	NCB	NCB	NCB	NCB	NCB
Presence at each individual project	Yes (100 %)	Yes (100 %)	Yes (100 %)	Some part of each product-testing program must be witnessed on site.	Supervision according to clause 10 of OD2031
Equipment Requirements	Fully equipped to category(ies) / standard(s) except for allowed subcontracting identified as “s” in the CTL Lists	Fully equipped to category(ies) / standard(s) / part(s) of standard(s)	Fully equipped to category(ies) / standard(s) / part(s) of standard(s)	Fully equipped to category(ies) / standard(s) / part(s) of standard(s)	Fully equipped to category(ies) / standard(s) / part(s) of standard
Assessment/Re-Assessments/Follow up Assessments (for CBTL)/ Follow-up auditing (for Manufacturer) (See OD CB 2032 § 2.3)	IECEE Peer Assessment Programme	Assessment by NCB based on OD-CB2028 within scope of arrangement	Assessment by NCB or by a representative of an accepted CBTL, on the request of an NCB, based on OD-CB2029 within scope of arrangement	Assessments by NCB, or by a representative of an accepted CBTL, on the request of the NCB, based on OD-CB2030 within scope of arrangement	Assessments by NCB(s) based on CB-OD2032 and any other relevant IECEE Operational Documents, including the laboratory’s quality management system and the laboratory’s testing processes,

实验室类型	CBTL	TMP	WMT	SMT	RMT
"授权"(审核和批准)签字人:	**CBTL**	**CBTL**	**NCB 或 CBTL**	制造商	制造商
"监督"签字人:	无	无	无	**NCB** 或其委托的 **CBTL**	**NCB 或其委托的 CBTL**
CB 证书签发人:	**NCB**	**NCB**	**NCB**	**NCB**	**NCB**
每个独立项目是否在场	是(100%)	是(100%)	是(100%)	每个产品的测试程序的某些部分必须现场目击测试	按照 **OD**2031 的第 10 章进行监督
设备要求	配备所有类别/标准要求的设备,除了在 **CTL** 列表里注明 "**S**"表示可以分包的以外	配备所有类别/标准/部分标准要求的设备	配备所有类别/标准/部分标准要求的设备	配备所有类别/标准/部分标准要求的设备	配备所有类别/标准/部分标准要求的设备
评审/复评审/跟踪评审(对于 **CBTL**)监督审核(对于制造商)(见 **OD CB**2032 第 2.3 条)	IECEE 同行评审程序	基于 OD-CB2028,由 NCB 在协议范围内评审	基于 OD-CB2029,由 NCB 或 CBTL 代表(根据 NCB 的要求)在协议范围内评审	基于 OD-CB2030,由 NCB 或 CBTL 代表(根据 NCB 的要求)在协议范围内评审	NCB 根据 CB-OD2032 和其他相关的 IECEE 操作文件,包括实验室质量管理体系和实验室测试程序在协议范围内评审。RMTL 每三年要求接受一次复评审,评审组由一个来自责任 NCB 的评审员和一个 IECEE 秘书处指定的评审组长组成

Laboratory Type	CBTL	TMP	WMT	SMT	RMT
					within scope of arrangement. RMTLs are subjected to a re-assessment every three years carried out by an assessment team composed of one assessor from the responsible NCB and one Lead Assessor appointed by the IECEE Secretariat
Relationship between NCB and operator of laboratory	Ownership or technical control contract with one or more NCB(s) in different category(ies) according to IECEE 01 / 02 and ISO/ IEC Guide 65	Agreement with more than one NCB is possible TMPL shall not be permitted to participate for more one NCB for the same product model	Agreement with more than one NCB is possible WMTL shall not be permitted to participate for more one NCB for the same product model	Agreement with more than one NCB is possible SMTL shall not be permitted to participate for more one NCB for the same product model	Agreement with more than one NCB is possible RMTL shall not be permitted to participate for more one NCB for the same product model
Agreement between NCB, CBTL and MTL	An agreement between NCB and CBTL(s) is required if different legal entities is required	An Agreement between NCB and MTL and CBTL is required. (See OD 2028)	An Agreement between NCB and MTL and CBTL is required. (See OD2029)	An Agreement between NCB and MTL and CBTL is required. (See OD2030)	An Agreement between NCB and MTL and CBTL is required. (See OD2031)
Registration of the MTL	OD-CB 2003 « List of Participants »	Yes	Yes	Yes	Yes

实验室类型	CBTL	TMP	WMT	SMT	RMT
NCB 和实验室之间的关系	根据 IECEE 01/02 和 ISO/IEC 导则 65 与一个或多个 NCB 在不同类别里的所有权或技术控制合同关系	与一个以上的 NCB 保持协作关系是可以的，对于相同的产品型号，TMPL 不被允许挂靠一个以上的 NCB	与一个以上的 NCB 保持协作关系是可以的，对于相同的产品型号，WMTL 不被允许挂靠一个以上的 NCB	与一个以上的 NCB 保持协作关系是可以的，对于相同的产品型号，SMTL 不被允许挂靠一个以上的 NCB	与一个以上的 NCB 保持协作关系是可以的，对于相同的产品型号，RMTL 不被允许挂靠一个以上的 NCB
NCB、CBTL 和 MTL 之间的协议	如果有不同的法律实体时，NCB 和 CBTL 之间要求有协议	NCB 和 MTL 和 CBTL 之间要求有协议（见 OD 2028）	NCB 和 MTL 和 CBTL 之间要求有协议（见 OD 2029）	NCB 和 MTL 和 CBTL 之间要求有协议（见 OD 2030）	NCB 和 MTL 和 CBTL 之间要求有协议（见 OD 2031）
MTL 合同和 LTR 合同（如适用）在 IECEE 秘书处登记	OD-CB2003《参与者列表》	有	有	有	有

Laboratory Type	CBTL	TMP	WMT	SMT	RMT
Contract and the LTR contact(if applicable) with the IECEE Secretariat					
Supervision / Training	Through the responsible NCB(s) according to scope of operation	Through respective responsible NCB(s)	Through respective responsible NCB(s)	Through respective responsible NCB(s)	Through respective responsible NCB(s)
Participation in CMC Meeting	Yes, through Member Body representation	No	No	No	No
Participation in CTL Meeting	Yes	On voluntary basis	On voluntary basis	On voluntary basis	On voluntary basis
Participation in CB Proficiency Testing Program	Required	Not required under the CTL PTP program, required under the responsibility of the relevant NCB	Not required under the CTL PTP program, required under the responsibility of the relevant NCB	Required may be coordinated when multiple NCBs are involved)	Required (may be coordinated when multiple NCBs are involved)

*NB: Signing persons shall be chosen appropriately in order to avoid any conflict of interest.

实验室类型	CBTL	TMP	WMT	SMT	RMT
监督/培训	根据操作范围通过责任 NCB 实施	通过各自的责任 NCB 实施	通过各自的责任 NCB 实施	通过各自的责任 NCB 实施	通过各自的责任 NCB 实施
参加 CMC 会议	是，通过成员机构代表	不	不	不	不
参加 CTL 会议	是	基于自愿原则	基于自愿原则	基于自愿原则	基于自愿原则
参加 CB 能力验证计划	要求参加	CTL 的能力验证计划不要求，由相关 NCB 要求	CTL 的能力验证计划不要求，由相关 NCB 要求	要求，当涉及多个 NCB 时可以协商	要求，当涉及多个 NCB 时可以协商

* 注：签字人应该适当选择以避免任何利益冲突。

GENERAL PRINCIPLES COVERING THE USE OF MANUFACTURERS' TEST LABORATORIES IN THE CB SCHEME

1. INTRODUCTION

1.1 Many manufacturers who use the IECEE CB Scheme have capable test laboratories in terms of personnel, facilities, and equipment, for testing the types of product for which they have responsibility for design, development, and production. In recognition of the market needs to utilise these facilities, procedures have been established for obtaining CB Test Certificates under controlled conditions. These procedures are an alternative to testing at a CBTL.

1.2 Four different Procedures have been developed for using a manufacturer's test facility:

Case A: Testing at Manufacturer's Premises (TMP) Procedure (see OD 2028)

Case B: Witnessed Manufacturer's Testing (WMT) Procedure (see OD 2029)

Case C: Supervised Manufacturer's Testing (SMT) Procedure (OD 2030)

Case D: Recognised Manufacturer's Testing (RMT) Procedure (OD 2031)

The above cases shall be considered as a whole to be a progression from full control of testing by a CBTL to full confidence in the capability of the manufacturer's laboratory.

2. REFERENCES

All the following documents have to be used in conjunction with the above mentioned ODs: IECEE 02, ISO/IEC 17025, Guide 65, Applicable IECEE ODs, CTL Decisions, Applicable ACAG decisions.

3. DEFINITIONS

3.1 CB Testing Laboratory (CBTL): A laboratory independent of manufacturing interests that has been recognised within the CB Scheme to test specified categories of products and to issue CB Test Reports.

3.2 Testing at Manufacturer's Premises Laboratory (TMPL): A manufacturer's laboratory being used by CBTL staff.

3.3 Witnessed Manufacturer's Testing Laboratory (WMTL): A manufacturer's laboratory being used for 100% Witnessed Testing by the NCB or, at the request of the NCB, by a CBTL.

在 CB 体系中使用制造商测试实验室的通用原则

1. 简介

1.1　很多使用 IECEE CB 体系的制造商拥有在人员、设施、设备等方面满足要求的测试实验室，有能力测试他们负责设计、开发、生产的产品。考虑到利用这些设施的市场需求，我们建立了在受控条件下获得 CB 证书的程序。这些程序是除了在 CBTL 进行测试之外的另一种选择。

1.2　针对使用制造商的测试设施，建立了 4 个不同的程序：

情况 A：在制造商场地测试（TMP）的程序
（见 OD 2028）
情况 B：目击制造商测试（WMT）的程序
（见 OD 2029）
情况 C：监督制造商测试（SMT）的程序
（见 OD 2030）
情况 D：认可制造商测试（RMT）的程序
（见 OD 2031）

以上各种情况可在整体上看作是从 CBTL 对测试的完全控制状态向对制造商实验室能力的全面信任的一个进程逐步发展。

2. 参考文件

以下所有文件与以上提及的 OD 文件协同使用：IECEE 02、ISO/IEC 17025、导则 65、适用的 IECEE OD 文件、CTL 决议、适用的 ACAG 决议。

3. 定义

3.1　CB 测试实验室（CBTL）：一个独立于制造商利益，在 CB 体系内已得到认可，可测试指定产品类别的产品并出具 CB 测试报告的实验室。

3.2　在制造商场地测试的实验室（TMPL）：一个由 CBTL 人员使用的制造商实验室。

3.3　目击制造商测试的实验室（WMTL）：一个由 NCB 或者在 NCB 的要求下由 CBTL 使用进行 100％目击测试的制造商实验室。

3.4 Supervised Manufacturers Testing Laboratory (SMTL): A manufacturer's laboratory being used by an NCB to conduct agreed testing within categories of products for which the manufacturer has design and production responsibility, generally with supervision of tests and quality processes.

3.5 Recognised Manufacturer's Testing Laboratory (RMTL): A manufacturer's laboratory being used by a NCB to conduct agreed testing within categories of products for which the manufacturer has design and production responsibility, generally with supervision of quality processes.

3.6 Local Technical Representative (LTR): A specified, competent and contracted person, operating under the responsibility of an NCB for testing at a manufacturer's laboratory, who locally carries out the required TMP, WMT, SMT and RMT activities according to **OD-CB 2034**, OD-CB 2027, OD-CB 2028, OD-CB 2029, OD-CB 2030 and OD-CB 2031 as applicable.

3.7 Ownership of Manufacturer's Testing Laboratory (MTL): an MTL is a testing laboratory that is owned by a "Manufacturer" (as defined in IECEE 02) who has Full responsibility for continued compliance of the MTL with the relevant requirements of ISO/IEC 17025 and IECEE Operational Documents.

Note: Examples for the purpose of the IECEE Schemes:
a) an outsourced (third party) laboratory is not permitted to operate as a MTL as detailed in Decision Sheet AAG/497/DSH .
b) an MTL is not permitted to carry out testing of products made by other manufacturers as detailed in Decision Sheet AAG/648/DSH.

4. GENERAL PRINCIPLES APPLICABLE TO ALL THE PROCEDURES LISTED IN CLAUSE 1.2

All testing carried out at Manufacturer's testing Laboratories shall be in accordance to the relevant requirements of ISO/IEC 17025 and the applicable IECEE procedures and decisions. Test results obtained shall be from a sample representative of production.

The NCB shall have the right to conduct any test prior to issuing a CB Test Certificate.

The NCB shall only allow Manufacturers Testing for specific categories of equipment for which the manufacturer has a proven capability.

A CB Test Certificate issued by the NCB obtained by Manufacturers Testing shall have the same status as one obtained from a CBTL.

A manufacturer permitted to use Manufacturers Testing shall not use this fact for promotional or advertising purposes.

The Secretary of the IECEE shall maintain and publish a register of those manufacturers participating and the categories of product involved.

3.4　监督制造商测试的实验室（SMTL）：NCB 所使用的制造商实验室，该实验室按照双方的约定，对制造商负有设计、生产责任的类别内的产品进行测试，通常实验室要接受对其测试过程和质量程序的监督。

3.5　认可制造商测试的实验室（RMTL）：NCB 所使用的制造商实验室，该实验室按照双方的约定，对其负有设计、生产责任的类别内的产品进行测试，通常实验室要接受对其质量程序的监督。

3.6　当地技术代表（LTR）：一个指定的、有能力的并且和 NCB 签约的人，在 NCB 的授权下在制造商实验室进行测试，他根据 OD-CB 2034、OD-CB 2027、OD-CB 2028、OD-CB 2029、OD-CB 2030 和 OD-CB 2031 中适用的文件在当地实施需要的 TMP、WMT、SMT 和 RMT 活动。

3.7　制造商测试实验室（MTL）的所有权：MTL 是一个“制造商”（在 IECEE 02 里定义）拥有的测试实验室，制造商对 MTL 持续符合 ISO/IEC 17025 相关要求和 IECEE 操作文件负有全责。

注：IECEE 体系的例子：

a）一个外包（第三方）实验室不允许作为 MTL 操作，详见 AAG/497/DSH 决议。

b）一个 MTL 不允许进行由其他制造商生产的产品的测试，详见 AAG/648/DSH 决议。

4. 适用于第 1.2 章列出的所有程序的通用原则

所有在制造商测试实验室中进行的测试都应符合 ISO/IEC 17025 相关要求和适用的 IECEE 程序和决议。测试结果应从有代表性的产品样品上获得。

NCB 在颁发 CB 测试证书前有权利进行任何测试。

NCB 应只允许制造商对已被确认能力的特定类别设备进行测试。

通过制造商测试获得的由 NCB 颁发的 CB 测试证书与通过 CBTL 测试获得的证书具有同等地位。

被允许使用制造商测试的制造商不应将这一事实作为宣传和广告目的。

IECEE 秘书应维护并公布制造商的注册信息和涉及到的产品类别。

9. Operation of Testing at Manufacturers' Premises(TMP)

OD-CB2028-Ed.1.2

2007-09-04

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9. 在制造商场所测试的（TMP）操作程序

OD-CB2028-Ed.1.2

2007-09-04

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1. Introduction

1.1 General principles covering the use of manufacturers' test laboratories for the purpose of third party assessment and certification are in OD CB 2027.

1.2 TMP is a procedure by which, at the request of an NCB, personnel from a CBTL perform testing at a manufacturer's testing laboratory with its own or the manufacturer's test equipment.

1.3 A TMPL is a manufacturer's laboratory being used to test specified products for which the manufacturer has production responsibility. Qualified personnel from an accepted CBTL, at the request of its NCB, performs tests at the manufacturer's laboratory.

1.4 The NCB and its CBTL wishing to use this procedure must have the relevant product category(ies) and standard(s) in their accepted IECEE scope. The CBTL staff who witness tests must have the necessary competence and expertise to carry out tests to the relevant standard(s).

1.5 TMP may be conducted by a registered LTR, according to OD-CB2034.

1.6 Under this procedure the testing remains under the control of the CBTL which is responsible for and signs the test report. The decision to conduct TMP must be approved beforehand by the relevant NCB.

2. Responsibilities

2.1 Responsibilities of the NCB

2.1.1 The NCB to whom the manufacturer has made application is responsible for:

a) ensuring that all personnel performing TMP are trained on an ongoing basis in:
   - procedures which apply to TMP in the IECEE Schemes;
   - relevant laboratory practices, test plans and testing procedures

b) the assessment and acceptance of the Quality Procedures of the CBTL applicable to the operation of the TMP programme;

c) review of documentation held by the CBTL performing TMP covering the assessment of the TMPL facilities and the TMP contractual arrangements;

d) ensuring that there is an appropriate three-way agreement between the NCB, CBTL and the TMPL.

e) registration of the laboratory as a TMPL with the IECEE Secretariat, and the maintenance of the correct and current details in the register;

f) issuing CB Test Certificates and CB Test Reports based on TMP.

1. 引言

1.1　基于第三方评审和认证的目的，使用制造商测试实验室的通用原则见 OD-CB2027。

1.2　TMP 是指根据 NCB 的要求，CBTL 的人员在制造商的实验室使用自有设备或制造商的测试设备进行测试的程序。

1.3　TMPL 是指制造商所拥有的用于测试制造商生产的特定产品的实验室。依照 NCB 要求，由授权 CBTL 资格人员在制造商实验室完成测试任务。

1.4　NCB 和 CBTL 应用此程序时，在其 IECEE 已接受的范围内应包含相应的产品种类和标准。目击测试的 CBTL 人员应具有必要的相应标准的测试能力及专业技术经验。

1.5　TMP 可由已注册的当地技术代表（见 OD-CB2034）执行。

1.6　使用 TMP 的决定必须事先得到相关 NCB 的同意。在本程序中，测试活动应始终由 CBTL 控制，该 CBTL 应签署测试报告并对报告承担责任。

2. 职责

2.1　NCB 的职责

2.1.1　制造商所申请的 NCB 应当负责以下方面：

a）确保所有执行 TMP 人员持续得到以下培训：

- IECEE 体系中与 TMP 相关的程序培训；
- 实验室的相关操作、测试计划和测试程序；

b）对运行 TMP 程序的 CBTL 的质量程序进行评审和认可；

c）审核执行 TMP 的 CBTL 的文件记录，包括 TMPL 设施的评审记录和 TMP 合同；

d）确保在 NCB、CBTL、TMPL 之间有一个适当的三方协定；

e）在 IECEE 秘书处注册 TMPL 实验室，并且保持注册信息的正确和更新；

f）颁发基于 TMP 的 CB 测试证书和 CB 测试报告。

2.1.2 The CBTL shall agree with the responsible NCB the use of TMP Procedures and the NCB's acceptance of the test programme. The NCB shall ensure that TMP is used in accordance with this Procedure.

2.2 Responsibilities of the CBTL

a) having ISO/IEC 17025 QMS Procedures which adequately cover all aspects of working off-site;
b) auditing its own quality system to ensure the correct application of off-site work procedures for TMP;
c) assessing the facilities and equipment of the manufacturer's TMP laboratory;
d) defining the role of manufacturer's personnel in support of the CBTL TMP activities;
e) assessment, if necessary, of the competence of manufacturers personnel to support the TMP activities;
f) being a party to an appropriate agreement as in 2.1.1 e) above.
g) carrying our all testing at the TMP laboratory and for the content of the subsequent test report;
h) signing the test report under "Tested by" and under "Authorized by", according to OD-CB2027.

2.3 Responsibilities of the TMPL

The manufacturer's laboratory used for TMP is responsible for:-

a) demonstrating that the facilities are in compliance with all relevant requirements of ISO/IEC 17025 and the IECEE requirements;
b) appointing an appropriate persons to be responsible for the TMP facilities and the support of the TMP operations;
c) ensuring that the manufacturer's (TMPL) staff follow the instructions of the personnel (CBTL or LTR) conducting TMP testing;

3. References

3.1 The following documents apply to the general arrangements for the operation of TMP:

- OD-CB 2027	Use of Manufacturers' Testing Laboratories: General Principles
- OD-CB 2034	Use of Local Technical Representative (LTR) for IECEE TMP, WMT, SMT and RMT Programmes

2.1.2 有关 TMP 的运作程序及 NCB 对测试程序的认可，CBTL 应与责任 NCB 达成一致。NCB 应确保使用 TMP 时与本程序保持一致。

2.2 CBTL 的职责

a）应有符合 ISO/IEC 17025 的质量管理体系并能充分覆盖所有在 CBTL 固定场所以外的工作；

b）审核本组织质量体系以确保用于 TMP 的固定场所以外的质量程序的正确运用；

c）评审制造商 TMP 实验室的设施和设备；

d）确定协助 CBTL 开展 TMP 活动的制造商实验室人员的任务；

e）必要时，对协助 TMP 活动的制造商实验室人员进行工作能力评估；

f）应为上述 2.1.1e）协议中的一方；

g）在 TMP 实验室进行测试并对测试报告的内容负责；

h）依据 OD-CB2027 在报告的测试栏及批准栏签署。

2.3 TMPL 的职责

作为 TMP 使用的制造商实验室应承担以下职责：

a）证明实验室设施符合 ISO/IEC 17025 及 IECEE 的所有相关要求；

b）指定一个适当的人员负责 TMP 实验室设施并支持 TMP 的运作；

c）确保在制造商场地测试的制造商实验室人员遵从 CBTL 或 LTR 人员的安排开展 TMP 测试。

3. 参考文件

3.1 下面的文件适用于 TMP 操作的通用规则：

- OD-CB 2027 使用制造商测试实验室：通用原则；
- OD-CB 2034 在 IECEE 体系中在制造商场地测试程序（TMP）、目击制造商测试程序（WMT）、监督制造商测试程序（SMT）和认可制造商测试程序（RMT）中使用当地技术代表（LTR）。

4. Procedures for TMP

4.1 The CBTL performing TMP shall have ISO/IEC 17025 QMS Procedures covering all aspects of working off-site, including:

a) initial assessment and periodic auditing of suitability of the manufacturer's staff, test facilities and test equipment in accordance with the relevant requirements of ISO/IEC 17025, in particular:
   i) competence of the TMPL staff who support the TMP activities, as applicable (ISO/IEC 17025 Cl. 5.2),
   ii) control of environmental conditions at the laboratory (Cl. 5.3),
   iii) stability and capacity of power supplies (Cl. 5.3),
   iv) availability of acceptable test equipment (cl. 5.5),
   v) test equipment calibration (Cl 5.6.2.2).

b) arrangements for periodic auditing of its own off-site operations

4.2 The TMP agreement shall, as a minimum, cover:

a) the facilities and services being supplied by the manufacturer's laboratory;
b) use of data generated, including laboratory records;
c) the role of the TMPL support staff, and the right to audit and/or re-assess the facilities

5. Conduct of Testing

5.1 Under TMP, testing is carried out by the CBTL personnel, supported by TMPL staff, with own or manufacturer's test equipment.

5.2 Manufacturer's personnel may assist in the preparation for and in the conduct of tests, but full responsibility for the testing rests with the CBTL or LTR.

6. Notification to the IECEE Secretariat

6.1 A NCB wishing to register a TMPL for recognition within the IECEE Schemes shall inform the IECEE Secretariat by submitting a completed Annex A of this OD and confirming that records of assessments are available for scrutiny. The NCB shall also inform the IECEE Secretariat when the agreement with the TMPL changes or if it is cancelled.

6.2 The IECEE Secretariat shall keep the record (OD-CB2019) updated giving details of TMPL facilities registered within the IECEE Schemes and operating in accordance with this OD.

7. Conditions concerning Choice of NCB

An TMPL shall be permitted to participate in the IECEE Schemes for more than one NCB in the same product category

An TMPL shall not be permitted to participate in the IECEE Schemes for more than one NCB for the same product model

4. 使用 TMP 的程序

4.1 CBTL 使用 TMP 时应建立符合 ISO/IEC 17025 并充分覆盖所有在 CBTL 固定场所以外工作的质量管理体系，包括：

a）对制造商的人员、测试设施及测试设备是否符合 ISO/IEC 17025 相关要求进行初审及定期审核，尤其是：

ⅰ）从事 TMP 工作的制造商实验室人员的能力（ISO/IEC 17025 第 5.2 条要求）；

ⅱ）实验室环境条件控制（第 5.3 条）；

ⅲ）电源稳定性和供电能力（第 5.3 条）；

ⅳ）符合要求的测试设备（第 5.5 条）；

ⅴ）测试设备的校准（第 5.6.2.2 条）。

b）对固定场所以外工作的定期审核的安排。

4.2 TMP 协议至少应包括：

a）由制造商实验室提供的设施和服务；

b）所得数据的使用，包括实验室记录；

c）TMPL 工作人员的任务，和对设施进行审核和复评审的权利。

5. 测试的实施

5.1 在 TMP 模式下，CBTL 人员在 TMPL 人员的配合下，使用 CBTL 的或制造商的测试设备进行测试。

5.2 制造商人员可以协助准备和进行测试，但是 CBTL 或 LTR 需要对测试活动承担全部责任。

6. 通知 IECEE 秘书处

6.1 NCB 希望注册一个 TMPL 以得到 IECEE 体系接受时，应通知 IECEE 秘书处，提交填写完整的本 OD 文件附录 A，并确认可提供评审记录以备详细审查。当与 TMPL 的协议发生变化或协议取消时，也应通知 IECEE 秘书处。

6.2 IECEE 秘书处应更新用于记载 IECEE 体系接受并按此程序操作的 TMPL 设施的记录（OD-CB2019）。

7. 选择 NCB 的条件

一个 TMPL 的同一个产品类别可以加入 IECEE 体系下的多个 NCB。

一个 TMPL 的同一型号产品只能加入 IECEE 体系下的一个 NCB。

NOTE: an TMPL shall not be permitted to address a test report for the same model to more than one NCB.

NCB responsibilities including supervision and traceability requirements shall be applied independently by each NCB

8. Assessment, Auditing and Verification of Competence

8.1 Responsibility for the initial assessment of the manufacturer's test facility rests with the CBTL,or LTR, in accordance with OD-CB2034, depending on who is involved.

8.2 Additionally, at each subsequent visit to the TMPL, the initial assessment results shall be re-validated, as necessary to ensure the ongoing suitability of the facility. The frequency of visits, changes at the TMPL organization and facilities, and TMPL scope shall be considered in determining the required level of re-assessment.

8.3 Any assessment or re-assessment activity is to be fully documented by the NCB utilising the IECEE appropriate Assessment Report Form. Records shall be maintained for a minimum of ten years. The documentation shall be made available for audit by the NCB, and for scrutiny at any subsequent IECEE Scheme re-assessment.

8.4 During the IECEE re-assessments, the responsibilities of the NCB or CBTL in respect to any TMP arrangements shall be reviewed.

9. Test Reports and Test Certificates

9.1 Test reports prepared using TMP shall use the relevant CB Test Report Forms and shall be signed by:

a) TMP qualified tester who carried out the testing - under "Tested by";
b) qualified CBTL reviewer, other than the staff who carried out the tests, following a review, - under "Authorized by".

9.2 Test Reports prepared using TMP shall record the name and address of the manufacturer's laboratory used, and indicate what tests have been carried out under TMP in the section "General Remarks".

9.3 When IECEE Test Certificates are based on TMP, a reference to the use of TMP shall be included under "Additional Information".

注：对于同一型号的产品，TMPL 不允许将其报告提交给多个 NCB。

每个 NCB 应独立实施各自的监督和追溯要求。

8. 评审、审核和能力的确认

8.1 根据 OD-CB2034，对制造商测试设备的首次评审由相关涉及的 CBTL 或 LTR 负责。

8.2 另外，首次评审后每一次到制造商实验室（TMPL），都应重新确认首次评审结果有效，以确保设施的持续适宜性。到访的频次、TMPL 机构及设施的变化，以及 TMPL 的范围都将作为决定复评审控制等级的考虑因素。

8.3 任何评审和复评审活动，NCB 都应按 IECEE 相应的评审报告格式形成完整的文件。记录至少应保存 10 年。文件应能在 NCB 审核和以后的 IECEE 体系复评审的任何详细审查时提供。

8.4 在 IECEE 复评审时，应对 NCB 或 CBTL 涉及 TMP 的所有职责进行审核。

9. 测试报告和测试证书

9.1 用 TMP 进行的测试其出具的报告应该用相应的 CB 报告格式，其签署要求如下：

a）进行 TMP 测试的有资格的测试人员在“测试（Tested by)”下签署；

b）CBTL 的有资格的审批人员（进行该项测试之外的其他人员），审核报告后在“批准（Authorized by)”下签署。

9.2 使用 TMP 程序出具的测试报告，应在“一般说明（General Remarks)”栏记录所用制造商实验室的名称及地址，并指明哪项实验是在该实验室做的。

9.3 当 IECEE 测试证书是使用 TMP 程序时，则应该在“附加信息（Additional Information)”中注明使用了 TMP。

ANNEX A

IEC System for Conformity Testing and Certification of Electrical Equipment IECEE Schemes

Use of a Manufacturer's Testing Laboratory under the TMP Procedure

Report to the IECEE Secretariat

NCB: ____________________________ **Report Ref:** ________

Date: ____________________

Name:____________________

Sign: ____________________

CBTL using the Manufacturer's Facility

Name: ____

Address: ____

Date of initial agreement: ____________ Name: _____________

Latest revision of agreement: ____________ Sign: _____________

Manufacturer's Test Laboratory

Name: ____

Address: ____

Standards/Tests covered by the Agreement

IEC STANDARD	Tests Covered (by clause number)

附录 A

IEC 电气设备的符合性测试和认证 IECEE 体系

TMP 程序下使用制造商的测试实验室给 IECEE 秘书处的报告

NCB：________________　　　报告号：________________

日期：________________

名字：________________

签名：________________

使用制造商设施的 CBTL

名称：________________

地址：________________

首次协议的日期：________________　　　名字：________________

最近对协议的修订：________________　　　签名：________________

制造商测试实验室

名称：________________

地址：________________

该协议所包含的标准/测试项目

IEC 标准	包含的测试项目（给出章节号码）

IECEE

CB-SCHEME OD-CB2029-Ed.1.2

OPERATIONAL & RULING DOCUMENTS

10. Operation of Witnessed Manufacturers' Testing(WMT) Laboratories Procedure

OD-CB2029-Ed.1.2

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IECEE

CB体系 **OD-CB2029-Ed.1.2**

操作和规则文件

10. 目击制造商测试（WMT）实验室的操作程序

OD-CB2029-Ed.1.2 **IEC - IECEE 2007**

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1. Introduction

1.1 General Principles covering the use of manufacturers' testing laboratories for the purpose of third-party assessment and certification are in OD-CB 2027.

1.2 A WMTL is a manufacturer's laboratory being used to test specified products or which the manufacturer has production responsibility. A representative of an accepted NCB or, on the request of that NCB a representative of an accepted CBTL, witnesses all tests done by a manufacturer's laboratory which uses its own test equipment.

1.3 The NCB or CBTL wishing to use this procedure must have the relevant product category(ies) and standard(s) in its accepted IECEE scope. The staff who witness tests must have the necessary competence and expertise to carry out tests to the relevant standard(s).

1.4 WMT may be witnessed by a registered LTR, according to OD-CB2034.

1.5 The decision to conduct WMT must be approved beforehand by the relevant NCB.

2. Responsibilities

2.1 Responsibilities of the NCB

2.1.1 The NCB to whom the manufacturer has made application is responsible for:

a) ensuring that all personnel involved in witness testing are trained on an ongoing basis in:
   - procedures which apply to WMT in the IECEE Schemes;
   - relevant laboratory practices and testing procedures

b) where a CBTL is involved, the assessment and acceptance of the Quality Procedures of the CBTL applicable to the operation of the WMT programme ;

c) where the NCB performs WMT without involving a CBTL, having appropriate procedures and documentation for the operation of WMT programme;

d) review of documentation held by the CBTL performing WMT covering the assessment of the WMTL facilities and the WMT contractual arrangements;

e) Ensuring that there is an appropriate two-way agreement either directly between the NCB and its WMTLs, or, where a CBTL not integrated with the NCB is involved, a three-way agreement between the NCB, each CBTL and the WMTL.

f) registration of the laboratory as a WMTL with the IECEE Secretariat, and the maintenance of the correct and current details in the register;

g) reviewing and signing the test report under "Authorized by", according to OD-CB2027, where the NCB is performing the WMT;

h) issuing CB Test Certificates and CB Test Reports based on WMT

1. 引言

1.1 基于第三方评审和认证目的，使用制造商测试实验室的通用原则见 OD-CB2027。

1.2 目击制造商测试实验室（WMTL）是用来测试特定产品或制造商有生产职责的产品的制造商实验室。制造商实验室使用自身测试设备进行的所有测试应由被接受的国家认证机构（NCB）的代表，或根据 NCB 的要求，由被接受的 CB 测试实验室（CBTL）代表进行目击。

1.3 希望使用这个程序的 NCB 或 CBTL，其被接受的 IECEE 范围内必须包括相关产品类别和标准。目击测试人员必须具备开展相关标准测试的必要的能力和专业技术。

1.4 根据 OD-CB2034，WMT 也可以由已注册的当地技术代表（LTR）进行目击。

1.5 进行 WMT 的决定必须事先得到相关 NCB 的批准。

2. 职责

2.1 NCB 的职责

2.1.1 接受制造商提出的申请的 NCB 应当负责以下方面：

a）确保涉及目击测试的所有人员持续得到以下培训：

- IECEE 体系内适用的 WMT 程序；
- 相关的实验室作业和测试程序。

b）在涉及到 CBTL 的情况下，评估和认可 CBTL 适用于 WMT 程序操作的质量程序；

c）在不涉及到 CBTL 而由 NCB 完成 WMT 的情况下，具有相应的 WMT 操作的程序和文件；

d）审查执行 WMT 的 CBTL 持有的包括评审 WMTL 设施和 WMT 合同管理的文件；

e）确保在 NCB 和其 WMTL 之间直接签订相应的双方协议，或者当涉及的 CBTL 与 NCB 不是一体时，则在 NCB、每个 CBTL 和 WMTL 之间签订三方协议；

f）在 IECEE 秘书处注册实验室作为 WMTL，并维护正确的和有效的信息；

g）如果 NCB 进行 WMT，按照 OD-CB2027，审查测试报告并在“授权”处签字；

h）颁发基于 WMT 的 CB 测试证书和 CB 测试报告。

2.2 Responsibilities of the CBTL (where involved)

a) having ISO/IEC 17025 QMS Procedures which adequately cover all aspects of working off-site;
b) auditing its quality system to ensure the correct application of off-site work procedures for WMT;
c) assessing the facilities and equipment of the manufacturer's WMT laboratory;
d) ensuring the presence of CBTL' staff at the manufacturer's laboratory during testing and defining their role in relation to the manufacturer's personnel who prepare and carry out the tests;
e) assessing the competence of manufacturer's personnel to perform the required tests;
f) being a party to an appropriate agreement as in 2.1.1 e) above.
g) witnessing all aspects of the tests carried out by the manufacturer's laboratory during Witness Testing;
h) reviewing and signing the test report under "Authorized by", according to OD-CB2027.

2.3 Responsibilities of the WMT Laboratory

The manufacturer's laboratory used for Witness Testing is responsible for:-

a) demonstrating that the facilities are in compliance with all relevant requirements of ISO/IEC 17025 and the IECEE Schemes' requirements;
b) appointing an appropriate person to be responsible for the WMT facilities and operations;
c) ensuring that all tests are carried out in accordance with the applicable technical requirements and the instructions of the witnessing personnel;
d) signing the test report under "Tested by", according to OD-CB2027.

3. References

The following documentsapply to the general arrangements for the operation of WMT:-

-	OD-CB 2027	General Principles Covering the Use of Manufacturers' Test Laboratories in the IECEE Schemes.
-	OD-CB 2034	Operation of Local Technical Representative (LTR)

4. Procedures for Witness Testing

4.1 The NCB or CBTL performing WMT shall have ISO/IEC 17025 QMS Procedures covering all aspects of working off-site, including:

2.2 CBTL（涉及时）的职责

a）根据 ISO/IEC 17025 制定的质量管理体系程序应当足够覆盖所有在 CBTL 固定场所以外的工作的各个方面；

b）审核其质量体系以确保正确应用其在固定场所以外的 WMT 工作程序；

c）评审制造商的 WMT 实验室的设施和设备；

d）确保在测试过程中 CBTL 的工作人员在制造商实验室的现场，并且确定他们与准备进行测试的制造商工作人员的相应关系；

e）评价进行所要求的测试工作的制造商人员的能力；

f）作为 2.1.1e）所述的相应协议中的一方；

g）在目击测试期间，目击由制造商实验室进行测试的所有方面；

h）审查测试报告，并按 OD-CB2027 在“授权”处签字。

2.3 WMT 实验室的职责

用于目击测试的制造商实验室的职责是：

a）证明其设施符合 ISO/IEC 17025 的所有相关要求和 IECEE 体系的要求；

b）指定适当的人员负责 WMT 的设施和操作；

c）确保所有的测试都按照适用的技术要求以及目击人员的指令进行；

d）按照 OD-CB2027，在测试报告“测试”处签字。

3. 参考文件

下述文件适用于 WMT 操作的通用安排：

- OD-CB2027 IECEE 体系内应用制造商测试实验室的总则；
- OD-CB2034 当地技术代表（LTR）的操作程序。

4. 目击测试程序

4.1 进行 WMT 的 NCB 或 CBTL 应当具备可覆盖所有在固定场所以外的工作的各个方面的 ISO/IEC 17025 质量管理体系程序，包括：

a) initial assessment and periodic auditing of suitability of the manufacturer's staff, test facilities and test equipment in accordance with the relevant requirements of ISO/IEC 17025, in particular:
   i) competence of the WMTL staff who perform the tests (ISO/IEC 17025 Cl. 5.2),
   ii) control of environmental conditions at the laboratory (Cl. 5.3),
   iii) stability and capacity of power supplies (Cl. 5.3),
   iv) availability of acceptable test equipment (Cl. 5.5),
   v) test equipment calibration (Cl 5.6.2.2).
b) arrangements for periodic auditing of its own off-site operations

4.2 The WMT agreement shall, as a minimum, cover:

a) the facilities and services being supplied by the manufacturer's laboratory;
b) use of data generated, including laboratory records
c) the supervisory role of the witnessing staff, and the right to audit and/or re-assess the facilities

5. Conduct of Witness Testing

5.1 Under WMT, testing is carried out by the manufacturer's personnel but full responsibility for the testing rests with the witnessing entity, ie. NCB, CBTL or LTR. Qualified witnessing staff shall be present whenever tests are conducted, and shall supervise, check, and witness all critical aspects of the tests. This includes but is not limited to:

a) preparing a product test plan and providing it to the manufacturer's laboratory;
b) checking the test set-up, instrumentation and the relevant equipment calibration;
c) directing proper placement and attachment of thermocouples;
d) witnessing the final data acquisition or read-out and conducting its validation where necessary.

6. Notification to the IECEE Secretariat

6.1 A NCB wishing to register a WMTL for recognition within the IECEE Schemes shall inform the IECEE Secretariat by submitting a completed Annex A of this OD and confirming that records of assessments are available for scrutiny. The NCB shall also inform the IECEE Secretariat when the agreement with the WMTL changes or if it is cancelled.

6.2 The IECEE Secretariat shall keep the record (OD-CB2019) updated giving details of WMT facilities registered within the IECEE Schemes and operating in accordance with this OD.

a）按 ISO/IEC 17025 的相关要求，对制造商人员、测试设施和设备的适用性进行初始评审和定期评审，尤其是：

ⅰ）进行测试的 WMTL 工作人员的能力（ISO/IEC 17025 5.2 条）；

ⅱ）实验室环境条件件的控制（5.3 条）；

ⅲ）电源供应的稳定性和容量（5.3 条）；

ⅳ）能够提供可接受的测试设备（5.5 条）；

ⅴ）测试设备的校准（5.6.2.2 条）。

b）安排对自身固定场所外操作的定期评审。

4.2　WMT 协议至少应当覆盖以下内容：

a）制造商实验室所提供的设施和服务；

b）所得数据的使用，包括实验室记录；

c）目击人员的监督角色，以及审核和/或者复审制造商设施的权利。

5. 目击测试的实施

5.1　在 WMT 情况下，测试由制造商人员进行，但目击实体，也就是 NCB、CBTL 或 LTR 对测试负有全部的责任。测试进行时，具备资格的目击人员应当在场，且应当监督、检查和目击所有的测试过程中的关键部分。这将包括但不仅限于：

a）准备产品测试计划，将其提供给制造商实验室；

b）检查测试设置、仪器和相应的设备校准；

c）指导热电偶的正确放置位置和附着方式；

d）目击最终数据的获得或者读取，必要时确认其有效性。

6. 通知 IECEE 秘书处

6.1　如果 NCB 希望注册一个 WMTL，使其在 IECEE 体系内被接受，那么应当告知 IECEE 秘书处并提交填写完毕的本 OD 附录 A，并且确认评审记录可以在需要时获得以进行详细审查。当 WMTL 协议有所变化或者被撤销时，NCB 也应当通知 IECEE 秘书处。

6.2　IECEE 秘书处应当保持记录（即 OD-CB2019）及时更新，该记录提供了在IECEE 体系内注册并按照本 OD 运行的 WMT 设施的详细资料。

7. Conditions concerning Choice of NCB

An WMTL shall be permitted to participate in the IECEE Schemes for more than one NCB in the same product category

An WMTL shall not be permitted to participate in the IECEE Schemes for more than one NCB for the same product model

NOTE: an WMTL shall not be permitted to address a test report for the same model to more than one NCB.

NCB responsibilities including supervision and traceability requirements shall be applied independently by each NCB

8. Assessment, Auditing and Verification of Competence

8.1 Responsibility for the initial assessment of the manufacturer's test facility rests with the NCB, CBTL, or LTR, in accordance with OD-CB2034, depending on who is involved.

8.2 Additionally, at each subsequent visit to the WMTL, the initial assessment results shall be re-validated, as necessary to ensure the ongoing suitability of the facility. The frequency of visits, changes at the WMTL organization and facilities, and WMTL scope shall be considered in determining the required level of re-assessment.

8.3 Any assessment or re-assessment activity is to be fully documented by the NCB utilising the IECEE appropriate Assessment Report Form. Records shall be maintained for a minimum of ten years. The documentation shall be made available for audit by the NCB, and for scrutiny at any subsequent IECEE Scheme re-assessment.

8.4 During the IECEE re-assessments, the responsibilities of the NCB or CBTL in respect of any WMT arrangements shall be reviewed.

9. Test Reports and Test Certificates

9.1 Test reports prepared using WMT shall use the relevant CB Test Report Forms and shall be signed by:

a) WMTL qualified tester who carried out the testing - under "Tested by";
b) witnessing personnel - under "Witnessed by"; and
c) qualified reviewer, other than the witnessing staff, following a review, - under "Authorized by".

9.2 Test Reports prepared using WMT shall record the name and address of the manufacturer's laboratory used, and indicate what tests have been carried out by the manufacturer in the section "General Remarks".

9.3 When IECEE Test Certificates are based on WMT, a reference to the use of WMT shall be included under "Additional Information".

7. 有关选择 NCB 的条件

对同一个产品类别，允许 WMTL 通过一个以上的 NCB 参加 IECEE 体系。

对同一个产品型号，不允许 WMTL 通过一个以上的 NCB 参加 IECEE 体系。

注：不允许 WMTL 将同一型号产品的测试报告提交给一个以上的 NCB。

NCB 的职责包括监督和溯源要求，职责应当由每一个 NCB 独立行使。

8. 能力的评审、审核和验证

8.1 按照 OD-CB2034，对制造商测试设施的初始评审的责任由相关涉及的 NCB、CBTL 或 LTR 承担。

8.2 此外，在每次后续进行对 WMTL 的访问时均应对初始评审的结果进行重新确认，以此确认设施的持续符合性。应当考虑访问的频次、WMTL 机构和设施的变化、WMTL 范围，以确认复评审所需要的级别。

8.3 任何评审或复评活动应当由 NCB 按照 IECEE 相应的评审报告格式完全文件化。记录应当保留至少十年。这些文件应当可以提供给 NCB 进行评审，并提供给任何后续的 IECEE 体系复评用以详细审查。

8.4 在 IECEE 复评审期间，NCB 或 CBTL 的任何关于 WMT 安排方面的职责都应当被审核到。

9. 测试报告和测试证书

9.1 利用 WMT 出具的测试报告应当使用相应的 CB 测试报告格式，并且由下列人员签字：

a）进行测试的具备资质的 WMTL 测试人员——在“测试”处签字；

b）目击人员——在“目击”处签字；

c）除目击人员以外的具备资质的评审人员审核报告后——在“授权”处签字。

9.2 利用 WMT 出具的测试报告应当记录所使用的制造商实验室的名称和地址，在“一般说明”一栏中指明哪些测试项目是由制造商进行的。

9.3 当 IECEE 测试证书是基于 WMT 得到的，则应在“附加信息”中注明应用了 WMT。

ANNEX A

IEC System for Conformity Testing and Certification of Electrical Equipment IECEE Schemes

Use of a Manufacturer's Testing Laboratory under the WMT Procedure

Report to the IECEE Secretariat

NCB: ________________________________ **Report Ref:** _____________

Date: ____________________

Name: ____________________

Sign: ____________________

CBTL using the Manufacturer's Facility

Name: ____

Address: ____

Date of initial agreement: _____________ Name: _________________

Latest revision of agreement: _____________ Sign: _________________

Manufacturer's Test Laboratory

Name: ____

Address: ____

Standards/Tests covered by the Agreement

IEC STANDARD	Tests Covered (by clause number)

附录 A
IECEE 体系
IEC 电气设备的符合性测试和认证体系
在 WMT 程序下使用制造商的测试实验室

给 IECEE 秘书的报告

NCB：________________ 报告号：________________

日期：________________

名字：________________

签名：________________

使用制造商设施的 CBTL

名称：________________________________

地址：________________________________

首次协议的日期：________________ 名字：________________

最近对协议的修订：________________ 签名：________________

制造商测试实验室

名称：________________________________

地址：________________________________

该协议所包含的标准/测试项目

IEC 标准	包含的测试项目（条款号）

第三章　CB 测试及 CB 报告相关文件

OPERATIONAL & RULING DOCUMENTS

11.Common Understanding of ISO/IEC 17025

OD-CB2040-Ed.1.0

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IECEE OD-CB2040-Ed.1.0

操作和规则文件

IEC电工设备及零部件合格体系评定

-IECEE

国际实验室认可合作组织

11. 对 ISO/IEC 17025 的共同理解

OD-CB2040-Ed.1.0

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IEC System for Conformity Testing and
Certification of Electrotechnical
Equipment and Components

CAB/ILAC JOINT WORKING GROUP "COMMON UNDERSTANDING OF ISO/IEC 17025"

FOREWORD:

Under the auspices of the IEC Conformity Assessment Board (CAB) and the International Laboratory Accreditation Conference (ILAC) the JWG task is to collaborate in order to achieve a uniform and common understanding of key elements of ISO/IEC 17025.

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Don Mader	CAB delegation	IECEE Chairman Board of Appeal
Chris Agius	CAB delegation	Secretary IECEx and IECQ
Joe Gryn	CAB delegation	IECEE CTL Chairman, Vice Chairman IECEx
Gosta Fredriksson	CAB Observer	Chairman IECEE
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CAB/ILAC 联合工作组“对 ISO/IEC 17025 的共同理解”

前言:

在IEC合格评定局(CAB)和国际实验室认可合作组织(ILAC)的支持下,联合工作组(JWG)的任务是合作以实现对ISO/IEC 17025关键条款的一致共同理解。

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CAB/ILAC JOINT WORKING GROUP "COMMON UNDERSTANDING OF ISO/IEC 17025"

Extracted from ISO/IEC 17025	JWG Common Understanding
5.4.6.2 Testing laboratories shall have and shall apply procedures for estimating uncertainty of measurement. In certain cases the nature of the test method may preclude rigorous, metrologically and statistically valid, calculation of uncertainty of measurement. In these cases the laboratory shall at least attempt to identify all the components of uncertainty and make a reasonable estimation, and shall ensure that the form of reporting of the result does not give a wrong impression of the uncertainty. Reasonable estimation shall be based on knowledge of the performance of the method and on the measurement scope and shall make use of, for example, previous experience and validation data. NOTE 1 : The degree of rigor needed in an estimation of uncertainty of measurement depends on factors such as: the requirements of the test method; the requirements of the client; the existence of narrow limits on which decisions on conformance to a specification are based. NOTE 2 : In those cases where a well-recognized test method specifies limits to the values of the major sources of uncertainty of measurement and specifies the form of presentation of calculated results, the laboratory is considered to have satisfied this clause by following the test method and reporting instructions (see 5.10).	**5.4.6.2 JWG-CU 1** **test laboratories must have a documented policy on the application of measurement uncertainties, and must be capable of estimating them.** **5.4.6.2 JWG-CU 2** **test laboratories (designated laboratory staff) shall be able to demonstrate this capability of calculating measurement of uncertainty by providing examples of typical measurements carried out in that laboratory.** **5.4.6.2 JWG-CU 3** **For purely qualitative tests estimation of measurement uncertainty is not required. E.g. breaking capacity test on Circuit Breakers.** **5.4.6.2 JWG-CU 4** **Test laboratories are not required to recalculate uncertainties for each and every test carried out.**

CAB/ILAC 联合工作组“对 ISO/IEC 17025 的共同理解”

摘自 IEC/ISO 17025	JWG 的共同理解
5.4.6.2 测试实验室应具有并应用评定测量不确定度的程序。某些情况下，测试方法的性质会妨碍对测量不确定度进行严密的计量学和统计学上的有效计算。这种情况下，实验室至少应努力找出不确定度的所有分量且作出合理评定，并确保结果的报告方式不会对不确定度造成错觉。合理的评定应依据对方法特性的理解和测量范围，并利用诸如过去的经验和确认的数据。 注 1：测量不确定度评定所需的严密程度取决于某些因素，诸如： — 测试方法的要求； — 客户的要求； —据以作出满足某规范决定的窄限。 注 2：某些情况下，公认的测试方法规定了测量不确定度主要来源的值的极限，并规定了计算结果的表示方式，这时，实验室只要遵守该测试方法和报告的说明(见 5.10)，即被认为符合本款的要求。	5.4.6.2 JWG-CU1 测试实验室必须具备测量不确定度应用的文件化的政策，而且具备估算不确定度的能力。 5.4.6.2 JWG-CU2 实验室（指定人员）应能提供本实验室典型的测量不确定度计算的实例，从而证明具备此能力。 5.4.6.2 JWG-CU3 单纯的定性试验不要求考核测量不确定度，例如，断路器的分断能力测试。 5.4.6.2 JWG-CU4 实验室无需对每一次测试都重复进行测量不确定度的计算。

CAB/ILAC JOINT WORKING GROUP “COMMON UNDERSTANDING OF ISO/IEC 17025”

Extracted from ISO/IEC 17025	JWG Common Understanding
Test reports **5.10.3.1** In addition to the requirements listed in 5.10.2, test reports shall, where necessary for the interpretation of the test results, include the following: **f)** deviations from, additions to, or exclusions from the test method, and information on specific test conditions, such as environmental conditions; **g)** where relevant, a statement of compliance/non-compliance with requirements and/or specifications; **h)** where applicable, a statement on the estimated uncertainty of measurement; information on uncertainty is needed in test reports when it is relevant to the validity or application of the test results, when a client's instruction so requires, or when the uncertainty affects compliance to a specification limit; **i)** where appropriate and needed, opinions and interpretations (see 5.10.5); **j)** additional information which may be required by specific methods, clients or groups of clients.	**5.10.3.1 JWG-CU 5** **It is agreed that the wording “where necessary” in relation of measurement uncertainty is only related to the examples provided in requirement under c)** **5.10.3.1 JWG-CU 6** **It is agreed that the wording under c) “or when the uncertainty affects compliance to a specification limit” is meant that an *estimate of measurement uncertainty shall be stated and reported in the Test Report.** ***This estimated value may be a typical value for that test.**

CAB/ILAC 联合工作组“对 ISO/IEC 17025 的共同理解”

摘自 IEC/ISO 17025	JWG 的共同理解
测试报告 5.10.3.1 当需对测试结果作出解释时，除 5. 10. 2 中所列的要求之外，测试报告中还应包括下列内容： f）对测试方法的偏离、增添或删节，以及特定测试条件的信息，如环境条件： g）相关时，符合（或不符合）要求和/或规范的声明； h）适用时，评定测量不确定度的声明；当不确定度与测试结果的有效性或应用性有关，或客户的指令有要求，或当不确定度影响到对规范限度的符合性时，测试报告中还需要包括有关不确定度的信息： i）适用且需要时，提出意见和解释（见 5.10.5） j）特定方法、客户或客户群体要求的附加信息。	5.10.3.1 JWG-CU5 不确定度的测量中“必要时”仅限于 c）条要求中提供的实例。 5.10.3.1 JWG-CU6 在 c）下面的“或当不确定度影响到符合参数的限值时”是指 * 测量不确定度的估算应该出现在报告中。 * 这个估值可能是那个测试的典型值。

CAB/ILAC JOINT WORKING GROUP "COMMON UNDERSTANDING OF ISO/IEC 17025"

Extracted from ISO/IEC 17025	JWG Common Understanding
Subcontracting of tests and calibrations **4.5.1** When a laboratory subcontracts work whether because of unforeseen reasons (e.g. workload, need for further expertise or temporary incapacity) or on a continuing basis (e.g. through permanent subcontracting, agency or franchising arrangements), this work shall be placed with a competent subcontractor. A competent subcontractor is one that, for example, complies with this International Standard for the work in question. **4.5.2** The laboratory shall advise the client of the arrangement in writing and, when appropriate, gain the approval of the client, preferably in writing. **4.5.3** The laboratory is responsible to the client for the subcontractor's work, except in the case where the client or a regulatory authority specifies which subcontractor is to be used. **4.5.4** The laboratory shall maintain a register of all subcontractors that it uses for tests and/or calibrations and a record of the evidence of compliance with this International Standard for the work in question.	**4.5.1 JWG-CU 1** **It is noted that while ABs can provide accreditations for individual tests of a product standard and/or a test method, the IEC Schemes are assessing and Recognizing a Testing Laboratory only if the latter can demonstrate competence and possess all required testing and measuring equipment for that particular standard in full.** **For the operation of the IEC Schemes certain tests which are rarely performed, under certain conditions, may be subcontracted on a permanent basis according to the Rules of the IEC Schemes.** **For ABs assessments any test that is not included in the accreditation schedule is listed as being excluded from the accreditation scope.** **4.1 and 4.5.1 JWG-CU 2** **For ABs assessments laboratories that comprising for instance a <u>main laboratory</u> and a <u>satellite laboratory</u>, with facilities that are located (far) away from each other, accreditation can be provided as single Laboratory's entity if:-** **a) these facilities form one legal entity,** **b) the accreditation is for the total organisation,** **c) there is one management system covering the total organisation,** **d) one person takes technical responsibility for the final test report issued,** **e) there is adequate procedures in place to protect the integrity of the equipment under test,** **f) the sequence of testing detailed in the product test standard is not compromised.**

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摘自 IEC/ISO 17025	JWG 的共同理解
测试和校准的分包 4.5.1 实验室由于未预料的原因（如工作量、需要更多专业技术或暂时不具备能力）或持续性的原因（如通过长期分包、代理或特殊协议）需将工作分包时，应分包给有能力的分包方，例如能够按照本准则开展工作的分包方。 4.5.2 实验室应将分包安排以书面形式通知客户，适当时应得到客户的准许，最好是书面的同意 4.5.3 实验室应就分包方的工作对客户负责，由客户或法定管理机构指定的分包方除外。 4.5.4 实验室应保存测试和/或校准中使用的所有分包方的注册记录，并保存其工作符合本准则的证明记录。	4.5.1 JWG-CU1 认可机构可以提供针对单独产品标准或测试方法的认可，IEC 程序仅在该实验室能够出具能力证明且具备所有测试设备时才会评估和认可他。对于 IEC 程序中很少进行的测试，在某些条件下，可以被分包到固定场所。在评估 ABs 时认可程序中未包含的测试都不在认可范围内。 4.1 和 4.5.1 JWG-CU2 在认可机构进行评审时，如果实验室包括例如主实验室和卫星实验室，其设施是地点分开（很远）的，具备下述条件时，可作为一个实验室实体来认可： a）这些设施构成一个法律实体； b）针对整个机构进行认可； c）一套管理体系覆盖整个机构； d）同一个人负担对最终测试报告的技术责任； e）有足够的程序保护被测设备的完整性； f）产品测试标准中的试验程序不会被破坏；

CAB/ILAC JOINT WORKING GROUP "COMMON UNDERSTANDING OF ISO/IEC 17025"

Extracted from ISO/IEC 17025	JWG Common Understanding
4.12.2 Technical records **4.12.2.1** The laboratory shall retain records of original observations, derived data and sufficient information to establish an audit trail, calibration records, staff records and a copy of each test report or calibration certificate issued, for a defined period. The records for each test or calibration shall contain sufficient information to facilitate, if possible, identification of factors affecting the uncertainty and to enable the test or calibration to be repeated under conditions as close as possible to the original. The records shall include the identity of personnel responsible for the sampling, performance of each test and/or calibration and checking of results. NOTE1: In certain fields it may be impossible or impractical to retain records of all original observations. NOTE2: Technical records are accumulations of data (see 5.4.7)and information which result from carrying out tests and/or calibrations and which indicate whether specified quality or process parameters are achieved.They may include forms,contracts,work sheets,work books, check sheets,work notes,control graphs,external and internal test reports and calibration certificates, clients' notes,papers and feedback. **4.12.2.2** Observations, data and calculations shall be recorded at the time they are made and shall be identifiable to the specific task.	**4.12.2.1 JWG-CU 1** **I was noted that while ABs do require retention of records in line with the Laboratory's procedure the IEC Schemes requires retention of records following the period of validity of the relevant certificate.**

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摘自 IEC/ISO 17025	JWG 的共同理解
4.12.2 技术记录 4.12.2.1 实验室应将原始观察、导出数据和建立审核路径的充分信息的记录、校准记录、员工记录以及发出的每份测试报告或校准证书的副本按规定的时间保存。每项测试或校准的记录应包含充分的信息，以便在可能时识别不确定度的影响因素，并确保该测试和校准在尽可能接近原条件的情况下能够重复。记录应包括负责抽样的人员、每项测试和/或校准的操作人员和结果校核人员的标识。 注 1：在某些领域，保留所有的原始观察记录也许是不可能或不实际的。 注 2：技术记录是进行测试和/或校准所得的数据（见 5.4.7）和信息的积累，他们表明测试和/或校准是否达到了规定的质量或规定的过程参数。技术记录可包括表格、合同、工作单、工作手册、核查表、工作笔记、控制图、外部和内部的测试报告及校准证书、客户信函、文件和反馈。 4.12.2.2 观察结果、数据和计算应在工作时予以记录，并能按照特定任务分类识别。	4.12.2.1 JWG-CU1 认可机构要求按照实验室的程序留存记录，而 IEC 体系要求根据有关证书的有效期限留存记录。

CAB/ILAC JOINT WORKING GROUP "COMMON UNDERSTANDING OF ISO/IEC 17025"

Extracted from ISO/IEC 17025	JWG Common Understanding
4.12.2.3 When mistakes occur in records, each mistake shall be crossed out, not erased, made illegible or deleted, and the correct value entered alongside. All such alterations to records shall be signed or initialled by the person making the correction. In the case of records stored electronically, equivalent measures shall be taken to avoid loss or change of original data.	**Note: The requirement is self explanatory however it was agreed to re-discuss its content at the next meeting**

CAB/ILAC 联合工作组“对 ISO/IEC 17025 的共同理解”

摘自 IEC/ISO 17025	JWG 的共同理解
4.12.2.3 当记录中出现错误时，每一错误应划改，不可擦涂掉，以免字迹模糊或消失，并将正确值填写在旁边。对记录的所有改动应有改动人的签名或缩写。对电子存储的记录也应采取同等措施，以避免原始数据的丢失或改动。	注：要求本身很清楚，不需额外解释，但工作组同意下次会议重新讨论其内容。

12. Sub-Contracting of Testing Activities

A **SUB-CONTRACTOR** is defined as “a supplier to a service organization in a contractual situation.

This document is aimed at to provide the basic principle of subcontracting and borrowing/renting Testing equipment by CBTLs under the CB Scheme.

The CTL has been assigned by the CMC with the task to originate the relevant "LIST" containing Testing/Measuring Equipment that are Required (R) to be available within the CBTL facilities as well as the Testing/Measuring Equipment that are allowed for sub-contracting and/or Borrow or Renting (S).

FACTS:

1) ISO/IEC 17025 and Guide 65 permit sub-contracting under certain conditions among which the sub-contractor shall be subjected to the same requirements as the candidate CBTL.

2) IECEE has approved LISTS of allowed sub-contracting/borrowing/renting (S) that have to be followed by the NCBs/CBTLs operating within the Schemes.

3) IECEE has agreed and approved the general principle and spirit of Sub-contracting to cover "well founded reasons".

The above requirements and Operational Documents shall be followed by every Member or Candidate, however, one shall be aware that other well founded reasons may arise which should be considered on a case-by-case basis.

As an example of “well-founded reasons”:

A) The CBTL is either sub-contracting some tests to another CBTL (which might be of the same Group at a different location)

B) The CBTL covers a limited scope of the standard.
Examples: IEC 60065 and IEC 60950 that are covering a huge number of products.

In such cases one could feel that investments in expensive test equipment for which there is no market demand is unrealistic.

However, one basic principle always apply:
"Subcontracted tests shall be compatible with the type test sequence determined by the standard".

12. 测试活动的分包

分包方被定义为“合约形式下服务机构的供给者”。

本文旨在提供在 CB 体系下 CB 实验室的分包和借用/租借测试设备活动中的基本原则。

CMC 指定 CTL 起草相关清单（“LIST”），表中既列出了 CB 实验室必须拥有的测试/测量设备（R），又列出了允许分包和/或借用或租用的测试/测量设备（S）。

实际情况：

1）ISO/IEC 17025 和导则 65 允许在特定条件下分包，条件之一就是分包方应当满足和转包的 CB 实验室相同的要求。

2）IECEE 已经批准了允许分包/借用/租用设备（S）的清单，各 NCB 和 CB 实验室在 CB 体系下须遵照执行。

3）IECEE 已经同意并批准了具有“恰当理由”分包的总原则和精神。每个成员或候选机构应当遵循上述要求和操作文件，但是应当认识到出现其他恰当理由时应按个别情况个别考虑的原则进行考虑。

下面是一个“恰当理由”的例子：

A）一个 CB 实验室将某些测试分包给另一个 CB 实验室（可能位于不同地点，而属于同一集团）；

B）CBTL 涵盖标准的一部分。例如：像 IEC 60065 和 IEC 60950 这样覆盖大量产品的标准。

在这些案例中，可以认为给没有市场需求的，价值昂贵的测试设备投资是不现实的。

无论如何，一个基本的原则总是适用：

“分包测试应符合标准规定的形式试验顺序”。

Example: A dielectric strength test cannot be subcontracted if the test is relative to the requirement of clause 15 of IEC 60335-1. As a matter of fact the Dielectric Strength Test shall immediately follow the IP test and therefore these two testing cannot be dissociated.

General Principles

Every CBTL, under the responsibility of its Certification Body, shall have all testing devices and facilities to cover the requirement of the relevant product's Standard.

However, in exceptional cases when well founded reasons prevail, i.e. Special test equipment, which is hardly ever needed for testing, it may be accepted that some testing, be **subcontracted** or **borrowed/rented**.

Subcontracted test

- The Candidate Testing Laboratory and the Subcontractor shall have a duly established Agreement.
- **The shipment of the sample to the Subcontractor, irrespective to the distance and location, shall be such that appropriate provisions are taken to prevent any alteration to the sample or product that my affect the testing/measuring integrity. In addition the CBTL shall have a documented procedure as part of the QMS covering the sub-contracting provisions for the shipment conditions**
- The subcontracted test(s) shall be compatible with the type test sequence determined by the standard(s).
  i.e. Humidity test cannot be subcontracted due to the fact that the safety electrical tests which follows the humidity tests shall be performed immediately after, for instance, the splash proof test.
- The Candidate Testing Laboratory shall exercise full control over the subcontractor in accordance with the relevant standard, ISO/IEC 17025. (By performing Audits and checking the qualification of the equipment and its operator).
- The CBTL shall ensure and document how their subcontractor are initially qualified and how the on-going validation is maintained
- The Assessment Team might decide to extend the assessment at the subcontractor location not only to make sure that the testing device(s) meets the technical criteria but also to ensure that the relevant subcontracted test(s) is (are) performed with the appropriate expertise and competence. However this resolution is subject to prior consultation with and subsequent agreement of the IECEE Secretary.

BORROWED / RENTED:

- The Candidate Testing Laboratory and the Borrowing/Renting Company shall have a duly established Agreement/Contract.
- The Candidate Testing Laboratory shall take appropriate provision to an extent that the transportation of the Borrowed/Rented equipment will not affect the correct functioning of the equipment.
- The Assessment Team shall verify the competence of the Laboratory Staff to properly use such equipment as well as the appropriateness of the testing/measuring equipment with respect to the standard's requirement.
- **In exceptional cases, when it is impractical to ship the borrowed or rented equipment to the CBTL facilities, i.e. extra size of humidity chamber, it is permitted that the CBTL staff carries out the relevant testing/measuring at the facility of the borrowed/rented company.**

例如：如果电气强度测试与 IEC 60335-1 的第 15 条的要求相关，则此测试不能被分包。因为实际情况是外壳防护等级测试后应立即进行电气强度测试，因而这两项测试不能被分开进行。

基本原则

在认证机构管理下的每个 CB 实验室都必须具备覆盖相关产品的标准所需的测试仪器和设施。

然而，在存在恰当理由的情况下，例如：对于很少使用的特殊测试设备，则允许一些测试项目的分包或借用/租用设备测试。

分包测试

• 测试实验室和分包方之间应建立一个适当的协议；

• 把样品运输到分包方时，不管其距离和地点，都应当采取适当的措施以防止对样品或产品的改变而影响测试/测量的完整性。另外，CB 实验室应当建立一份文件化程序作为质量管理体系的一部分用以规定分包时的样品运输要求。

• 分包测试应符合标准规定的型式测试顺序。

例如：潮湿测试不能分包，因为其后的电气安全测试必须在潮湿测试（如防溅测试）后立即进行。

• 测试实验室应当按相关标准 ISO/IEC 17025 对分包实验室进行全面控制（通过审核和检查设备及其操作人员资质的方式）。

• CB 实验室应确保对分包方的资格进行初次认定和持续验证，并对如何实施进行文件规定。

• 评审组可以决定将评审延伸到分包方现场，这样做不仅是为了确保用于测试的设备达到技术标准，而且也确保相关的分包测试是由具有专门技术和能力的人来完成的。然而，这个决定应在事前向 IECEE 秘书处咨询且在征得其同意的情况下做出。

借用/租用

• 测试实验室和出借/出租公司之间应建立一份适当的协议/合同。

• 测试实验室应采取适当措施用以确保借用/租用设备的运输不会影响设备的正常功能。

• 评审组应核实实验室员工是否有能力正确操作这些设备，同时要核实这些测试/测量设备是否满足标准的要求。

• 特例情况下，当运输借用或租用设备到 CB 实验室不切实际时，例如超大尺寸的潮湿室，则允许 CB 实验室员工在被借用/租用公司的现场进行相关测试/测量。

IECEE

CB-SCHEME OD-CB2041-Ed.1.0

OPERATIONAL & RULING DOCUMENTS

13. Guide on Product Families, Family Ranges or Series of Products

OD-CB2041-Ed.1.0

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IECEE

CB体系 **OD-CB2041-Ed.1.0**

操作和规则文件

13. 产品族、系列范围、产品系列指南

OD-CB2041-Ed.1.0 **IEC - IECEE 2007**

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Introduction

The IECEE CMC has identified the need to define a Family Range or a Series of Products as a means to improve the acceptance of CB Test Certificates among IECEE member NCBs. It was noted that inconsistencies in the range of
products that may be covered by one CBTC and in the scope of evaluation of a product family often result in NCBs questioning CB Test Certificates and Test Reports.

The objective of this Guide is to assist NCBs and CBTLs in the decisions on the coverage of a CB Test Certificate and on the selection of appropriate samples from a product family for evaluation and testing. It provides a general definition of a product family and, in Annex A, some specific examples of product families and sample selection criteria in various IECEE product categories.
For the purpose of this Guide, the terms Product Family, Family Range or Product Series are considered synonymous.

Issues to be Noted

A number of issues have been identified in the CTL and CMC discussions on the subject of Family Ranges. They are provide here for guidance to the application of the Family Range concept.

First and foremost it must be noted that the concept of a product family may very significantly among the different product categories in the IECEE, and even among different types of products within one category, such as MED or OFF.
Furthermore, product families may be defined differently among the same products in the fields of Electrical Safety as compared to EMC. Clearly, this is related to the different compliance criteria in these fields and the different product features that must be evaluated to verify compliance.

Secondly, the CTL has emphasized that the examples compiled by each of the CTL Expert Task Forces (ETFs) are provided primarily to illustrate the product family concept, and that they apply only to the specific product types in the examples.

引言

为了提高 CB 测试证书在 IECEE 成员 NCB 中的接受度，IECEE CMC 已经明确了对产品范围或产品系列定义的需要。对于 CB 测试证书所覆盖的产品范围以及对产品系列评价范围的不一致，常导致 NCB 对 CB 测试证书及测试报告产生质疑。

此指南的目的在于帮助 NCB 以及 CBTL 决定 CB 测试证书的覆盖范围以及从产品族（产品系列）中选择合适的样品用于评价及测试。本指南对产品族给出了通用的定义并在附录 A 中给出产品系列的具体例子，以及在不同 IECEE 产品类别中选择测试样品的标准。

本指南中所用的词语产品族、系列范围以及产品系列是同义词。

需要关注的方面

关于产品系列在 CTL 及 CMC 的讨论中已明确以下几点，可作为产品系列概念的应用的指导。

首先也是最重要的，是必须要注意到产品系列的概念在不同的 IECEE 产品类别中是有显著差异的，甚至在同一产品类别，如 MED 或 OFF 中的不同类型产品中，产品系列的概念也是不同的。而且即使是同一类型的产品，在电气安全及电磁兼容领域中，产品系列也有着不同的定义。显然，这是与这些领域不同的符合性标准要求相关的，而不同的产品特性是必须要通过评价来验证其符合性的。

其次，CTL 强调由每个 CTL 专家组编辑的例子都主要用来解释产品系列的概念，而且它们仅适用于例子中的特定产品类型。

Another significant issue to note is the need to provide a proper balance between the consistency of approach desired the IECEE and the flexibility needed by manufacturers.

Definition of Product Family

Having considered the identified objectives and concerns, the CTL has developed the following definition of a Product Family.

"*A* ***product family*** *can be defined by the maximum configuration, a list of components/sub-assemblies plus a description of how the models are constructed from the maximum configuration and list.*
All models which are included in the ***family*** *typically have common design, construction, parts, or assemblies essential to ensure conformity with applicable requirements.*
For the same products, there may be differences in defined ***product families*** *that are contingent upon the nature or type of compliance criteria applied (e.g. safety, EMC, performance, efficacy, etc.).*
If a product standard defined a ***product family****, in the context of the specific standard, this definition takes over.*"

This definition is provided for use in the decisions on the range of products that may appear on one CB Test Certificate and in the accompanying CB Test Report.

The examples provided in Annex A apply only to the specified types of products. However, they can be of some help for similar product when deciding on the number and type of samples to be selected from a product family for evaluation and testing.

还需关注的另一个重要方面是在满足 IECEE 的一致性要求与制造商需要的灵活性之间达到合适的平衡。

产品系列定义

考虑已经明确的目的及所关注的事情，CTL 对产品系列采用如下定义：

产品系列可由最大配置、零部件/组件清单及这两者如何构成各个型号的描述来定义。

产品系列中的所有型号通常都有共同的设计、结构、零部件或组件，以确保符合适用的要求。

对同种产品，由于采用符合性标准的性质或类别不同（如安全、EMC、性能、功效等），产品系列的定义可能有所差异。如某个产品标准定义了产品系列，则在此标准的背景下使用标准中的定义。

此定义用于明确可能出现在一张 CB 测试证书及其测试报告上的产品范围。

附录 A 的例子只适用于特定类型的产品，但对类似的产品，当需要从其产品系列中选择用于评价及测试的样品及其数量时，这些例子会有所帮助。

ANNEX A
Examples of Product Families and Sample Selection Criteria

Product Category: HOUS (CTL-ETF 1)

1. Heating Appliances

The test results stated on the CB Test Report should make reference to all of the models in addition to clarify differences among those models.

a) Oil-filled radiators with different input and different number of elements (IEC 60335-2-30) as follows:
600 W with 5 elements / 1000W with 6 elements / 1500W with 7 elements / 2000W with 10 elements / 2500W with 12 elements / 3000W with14 elements
Considering the specific input for each element (input/number of elements) the models giving the most unfavourable result should be the models of 1500W and 3000W in general.
In the first page of the Test Report, it should be declared that only the models of 1500W and 3000W was tested considering most severe condition.

b) Flexible sheet heating elements for room heating with same heat dissipation/area (construction of heating elements) but with different input and size (IEC60335-2-96) as follows:
752 W / 1,126 W / 1,470 W / 2,010 W / 2,470 W / 2,836 W
Considering the construction that all models have the same heat dissipation/area (construction of heating elements), only the smallest size of unit or minimum size required by standard should be tested in general.
In the first page of the Test Report, it should be declared that only the models of 752 W Type were tested because the test covers all the models quoted.

2. Motor-Operated Appliances

The test results stated on the CB Test Report should make reference to all of the models in addition to clarify differences among those models.

a) Refrigerators with same refrigerant circuit having the same motor compressor, same mass of the refrigerant, same input (and same defrosting input, if any) but with different internal volume (capacity) (IEC 60335-2-24) as follows:
150W 100 litres / 150W 120 litres / 150W 140 litres / 150W 160 litres
Considering that the motor compressor operates more frequently for model with 160 litres, this one should be considered for the tests in general.

附录 A
产品系列举例及测试样品选择准则

产品类别：HOUS（CTL-ETF1）

1. 电热器具

CB 测试报告的测试结果应参考所有的型号，并清楚地列出这些型号之间的差异。

a）有不同输入功率及不同数量的加热元件的充油式散热器（IEC 60335-2-30）：

600W，5 个加热元件/1000W，6 个加热元件/1500W，7 个加热元件/2000W，10 个加热元件/2500W，12 个加热元件/3000W，14 个加热元件。

考虑到每个加热元件的输入功率（用输入功率除以加热元件的数量），总的来说 1500W 及 3000W 的样品会带来最不利的结果。

在测试报告的首页，应声明考虑到最严酷的条件只有 1500W 和 3000W 的型号进行了测试。

b）用于室内加热，有相同的热消散面积（加热元件的结构），但输入功率及尺寸不同的软片加热元件（IEC 60335-2-96）：

752W/1126W/1470W/2010W/2470W/2836W

考虑到所有型号的样品都有相同的单位面积上的散热率（加热元件的结构），一般而言只需测试最小的单位尺寸或标准要求的最小尺寸。

在测试报告的首页应申明只测试了 725W 的样品，因为测试覆盖所有其他型号的样品。

2. 电动器具

CB 测试报告的测试结果应参考所有的型号，并清楚地列出这些型号之间的差异。

a）冰箱有相同的制冷电路、相同的压缩机、相同质量的制冷剂、相同的输入功率以及相同的除霜功率等，但有着不同的内部容积（容量）：

150W，100 升/150W，120 升/150W，140 升/150W，160 升

考虑到 160 升样品的压缩机工作最频繁，通常应测试此样品。

在测试报告的首页应申明只测试了 160 升的样品，因为它能给出最不利的测试结果。

In the first page of the Test Report, it should be clarified that only the model with 160 litres was tested because it gives most unfavourable result.

b) Fan with same type of motor (permanent split capacitor motor) and its housing but with different numbers of turn of coils and with different rated frequency (IEC60335-2-80) as follows:
6.0W / 7.0W (50Hz / 60 HZ), 9.5W / 10.5W (50Hz / 60 HZ), 12.5W / 15.0W (50Hz / 60 HZ) 16.5W / 19.0W (50Hz / 60 HZ)
Considering that the number of turn of coil was simply increased without changing its housing among models, “16.5W / 19.0W (50Hz / 60 HZ)” models should be tested in general.
In the first page of the Test Report, it should be clarified that only the models of “16.5W / 19.0W (50Hz / 60 HZ)” was tested because it gives most unfavourable result.
Note: It is necessary to be more careful to check the construction of winding in order to include in the same family”.

Product Category: OFF, TRON (CTL-ETF 2)

IT Component Power Supplies
Series of ratings

1. Different output ratings, number of outputs, component ratings.
2. Same enclosure, same MAINS layout,
   Same style and insulation system of transformer.
   It may be possible to select a few models to represent the series, and repeat partially the tests on the selected models.

PC's with different combinations of sub-assemblies (disk-drives, DVD-drives etc.)

1. Same power supplies
2. Same enclosure

Power Amplifiers

1. Same enclosure, same MAINS lay out.
2. Different output ratings (100W, 200W, 300W)
3. Power transformer: Different ratings, sizes same insulation system.
   In this case (as a minimum, Input, Heating and some Fault Tests would be repeated for multiple models.

Video Recorders (VHS and/or DVD and /or hard disk)
Different features for different TV systems and different feature for recording and storing (e.g. Size of hard disk)

1. Same MAINS lay out.
2. Basically same sub-assemblies

b）有着相同型号电动机（固定分相式电容器电动机）及电动机罩的风扇，但线圈匝数、额定频率不同（IEC 60335-2-80）：

6.0W/7.0W（50Hz/60Hz），9.5W/10.5W（50Hz/60Hz），12.5W/15.0W（50Hz/60Hz），16.5W/19.0W（50Hz/60Hz）

考虑到线圈匝数的增加不会改变电动机罩，通常应测试型号为“16.5W/19.0W（50Hz/60Hz）”的样品。

在测试报告的首页应申明只测试了“16.5W/19.0W（50Hz/60Hz）”的样品，因为它能给出最不利的测试结果。

注：有必要仔细检查线圈结构以便划分产品系列。

产品类别：OFF，TRON（CTL-ETF2）

IT 组件电源

额定值系列

1. 不同的额定输出，输出端口数量，零部件的额定值。

2. 相同的外壳，相同的电源设计，相同类型及绝缘系统的变压器。

如可能，可以选择几个型号的样品以代表此产品系列，并对选择的样品重复进行部分测试。

带有不同配件（硬驱、DVD 驱动器等）组合的计算机

1. 相同的电源。

2. 相同的外壳。

功率放大器

1. 相同的外壳，相同的电源设计。

2. 不同的额定输出（100W，200W，300W）。

3. 电源变压器：不同的额定值、尺寸，相同的绝缘系统。

在这种情况下，最少应在多个型号的样品上重复测试输入功率、发热及一些故障条件。

视频刻录机（VHS 及/或 DVD 及/或硬盘）

针对不同电视系统的不同特征以及记录和存储的不同特征（如：硬盘的尺寸）

1. 相同的电源设计。

2. 基本相同的配件。

TV-Sets
Having different screen dimensions.
1. Same MAINS layout, same style and insulation system of transformer.
2. If equipped with CRT than same high voltage layout.
3. Different output ratings.

Product Categories: MEAS and MED (CTL-ETF 3)

Measurement Equipment
Same MAINS layout, same measuring circuit, same separation of measurement-inputs.
Can differ in for instance software, enclosure-size, number of inputs.
It may be possible to select a few models to represent the series, and repeat partially the tests on the selected models.

Patient monitors
Same MAINS layout, same applied parts and separations, same classifications
Can differ in Software, evaluation features with different interface.
It may be possible to select a few models to represent the series, and repeat partially the tests on the selected models.

ECG monitors
Same MAINS layout, same applied parts and separations, same classifications.
Can differ in Software, evaluation features with different interface, amount of channels.
It may be possible to select a few models to represent the series, and repeat partially the tests on the selected models.

Product Categories: INST, CONT, CAP, BATT, MISC (CTL-ETF 4)

ETF 4 feels that in these product categories it would be inappropriate to provide specific examples of product families since product families are either already included in the standards or are manufacturer-specific.

Product Categories: LITE, SAFE (CTL-ETF 5)

The examples of product families and appropriate sample selection criteria are given in the following documents:
- IEC 60598-1/2003 - Annex T (Normative)
- Luminaires components – CTL Provisional Decision Sheets N° 570/06 – 577/06 – 587/06.
- CTL-ETF5/OSM-LUM/L.I.P. Decision Sheets N. 008/03 – 009/03 – 009A/03.m, for luminaires.

电视机

不同屏幕尺寸。

1．相同的电源设计，相同类型及绝缘系统的变压器。

2．相同的高压设计（如装有显像管）。

3．不同额定输出。

产品类别：MEAS 及 MED（CTL-ETF3）

测量设备

相同的电源设计，相同的测量电路，相同的测量输入分离。

可以在如软件、外形尺寸及输入的数量上存在差异。

如可能，可以选择几个型号的样品以代表此产品系列，并对选择的样品重复进行部分测试。

监护仪

相同的电源设计，采用相同的零部件及分离件，相同的类别。

可以在产品的软件、带有不同界面的评价特征上存在差异。

如可能，可以选择几个型号的样品以代表此产品系列，并对选择的样品重复进行部分测试。

心电监护仪

相同的电源设计，采用相同的零部件及分离件，相同的类别。

可以在产品的软件、带有不同界面的评价特征及通道数量上存在差异。

如可能，可以选择几个型号的样品以代表此产品系列，并对选择的样品重复进行部分测试。

产品类别：INST、CONT、CAP、BATT、MISC（CTL-ETF4）

由于这些类别中的产品系列已包括在标准中或者为制造商特定，所以 ETF4 认为不适宜提供产品系列的例子。

产品类别：LITE、SAFE（CTL-ETF5）

产品系列的例子及选择合适测试样品的准则由以下文件给出：

— IEC 60598-1/2003-附录 T（规范性的）；

— 灯具零部件-CTL 临时决议 N. 570/06-577/06-587/06；

— CTL-ETF5/OSM-LUM/L. I. P. 对灯具的决议 N. 008/03-009/03-009A/03. m；

- CTL-ETF5/OSM-LUM/L.I.P. Decision Sheets N. 215/03 – 221/03 – 233/03, for luminaires components.

Product Category: CABL (CTL-ETF 6)

For the insulated cables, each particular type of cable specified in the different parts of
International Standards IEC 60227 and IEC 60245 is considered a family range.
These types, together with their code designations, are listed in Annex A of the standards IEC 60227-1 and IEC 60245-1.
The approach for selection of test samples is illustrated in the following Table 1 and Table 2.

— CTL-ETF5/OSM-LUM/L. I. P. 对灯具零部件的决议 N. 215/03- 221/03-233/03。

产品类别： CABL（CTL-ETF6）

对绝缘电缆，在不同标准 IEC 60227 及 IEC 60245 中规定的每一个特别型号的电线被认为是一个产品系列。这些型号的电线以及它们的代号列于标准 IEC 60227 及 IEC 60245 的附录 A 中。

对测试样品的选择方法列于表 1 及表 2 中。

Table 1 Sample to be selected when testing according to IEC60227

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colors	Type of cables and cords	Number and size of sample to be tested
60227 IEC 01	All	All	Single-core non-sheathed cable with rigid conductor for general purpose	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60227 IEC 02	All	All	Single-core non-sheathed cable with flexible conductor for general purpose	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60227 IEC 05	All	All	Single-core non-sheathed cable with solid conductor for internal wiring for a conductor temperature of 70℃	1 sample
60227 IEC 06	All	All	Single-core non-sheathed cable with flexible conductor for internal wiring for a conductor temperature of 70℃	1 sample
60227 IEC 07	All	All	Single-core non-sheathed cable with solid conductor for internal wiring for a conductor temperature of 90℃	1 sample
60227 IEC 08	All	All	Single-core non-sheathed cable with flexible conductor for internal wiring for a conductor temperature of 90℃	1 sample
60227 IEC 10	All	All	Light polyvinyl chloride sheathed cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 41	All	All	Flat tinsel cord	1 sample
60227 IEC 43	All	All	Cord for indoor decorative lighting chains	1 sample
60227 IEC 52	All	All	Light polyvinyl chloride sheathed cord	1 sample round, 1 sample flat
60227 IEC 53	All	All	Ordinary polyvinyl chloride sheathed cord	For round: 1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores For flat: 1 sample

表 1　按 IEC 60227 测试时样品的选择

型号	芯数和 标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60227 IEC 01	所有	所有	一般用途单芯硬导体无护套电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60227 IEC 02	所有	所有	一般用途单芯软导体无护套电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60227 IEC 05	所有	所有	内部布线用导体温度为 70℃ 的单芯实心导体无护套电缆	样品 1 件
60227 IEC 06	所有	所有	内部布线用导体温度为 70℃ 的单芯软导体无护套电缆	样品 1 件
60227 IEC 07	所有	所有	内部布线用导体温度为 90℃ 的单芯实心导体无护套电缆	样品 1 件
60227 IEC 08	所有	所有	内部布线用导体温度为 90℃ 的单芯软导体无护套电缆	样品 1 件
60227 IEC 10	所有	所有	轻型聚氯乙烯护套电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60227 IEC 41	所有	所有	扁形铜皮软线	样品 1 件
60227 IEC 43	所有	所有	户内装饰照明回路用软线	样品 1 件
60227 IEC 52	所有	所有	轻型聚氯乙烯护套软线	圆形样品 1 件， 扁形样品 1 件
60227 IEC 53	所有	所有	普通聚氯乙烯护套软线	对于圆形： 接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件 对于扁形： 样品 1 件

Table 1 (continued)

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colors	Type of cables and cords	Number and size of sample to be tested
60227 IEC 56	All	All	Heat-resistant light PVC-sheathed cord for a maximum conductor temperature of 90□	1 sample round, 1 sample flat
60227 IEC 57	All	All	Heat-resistant ordinary PVC-sheathed cord for a maximum conductor temperature of 90□	For round: 1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores For flat: 1 sample
60227 IEC 71f	All	All	Flat polyvinyl chloride sheathed lift cable and cable for flexible connections	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 71c	All	All	Circular polyvinyl chloride sheathed lift cable and cable for flexible connections	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 74	All	All	Oil resistance, polyvinyl chloride sheathed, screen flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 75	All	All	Oil resistance, polyvinyl chloride sheathed, unscreened flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores

（续）

型号	芯数和 标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60227 IEC 56	所有	所有	导体最高温度为 90℃的耐热轻型聚氯乙烯护套软线	圆形样品 1 件， 扁形样品 1 件
60227 IEC 57	所有	所有	导体最高温度为 90℃的耐热普通聚氯乙烯护套软线	对于圆形； 接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件 对于扁形：样品 1 件
60227 IEC 71f	所有	所有	扁形聚氯乙烯护套电梯电缆和挠性连接用电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60227 IEC 71c	所有	所有	圆形聚氯乙烯护套电梯电缆和挠性连接用电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60227 IEC 74	所有	所有	耐油聚氯乙烯护套屏蔽软电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60227 IEC 75	所有	所有	耐油聚氯乙烯护套非屏蔽软电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件

Table 2 Sample to be selected when testing according to IEC 60245

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colors	Type of cables and cords	Number and size of sample to be tested
60245 IEC 03	All	All	Heat resistant silicon insulated cable for a conductor temperature of maximum 180□	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60245 IEC 53	All	All	Ordinary tough rubber sheathed cord	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 57	All	All	Ordinary polychloroprene or other equivalent synthetic elastomer sheathed cord	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 66	All	All	Heavy polychloroprene or other equivalent synthetic elastomer sheathed flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 58 60245 IEC 58f	All	All	Polychloroprene or equivalent synthetic elastomer sheathed cable for decorative chains	1 sample round, 1sample flat
60245 IEC 70	All	All	Braided lift cable for normal use	1 sample of approximately maximum number of cores
60245 IEC 74	All	All	tough rubber sheathed lift cable for normal use	1 sample of approximately maximum number of cores
60245 IEC 75	All	All	Polychloroprene or other equivalent synthetic elastomer sheathed lift cable for normal use	1 sample of approximately maximum number of cores

表 2 按 IEC 60245 测试时样品的选择

代号	芯数和 标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60245 IEC 03	所有	所有	导体最高工作温度为 180℃的耐热硅橡胶绝缘电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60245 IEC 53	所有	所有	普通强度橡套软线	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 57	所有	所有	普通氯丁或其他相当的合成弹性体橡套软线	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 66	所有	所有	重型氯丁或其他相当的合成弹性体橡套软电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 58 60245 IEC 58f	所有	所有	装饰回路用氯丁或其他相当的合成弹性体橡套电缆	圆形样品 1 件，扁形样品 1 件
60245 IEC 70	所有	所有	编织电梯电缆	接近最多芯数样品 1 件
60245 IEC 74	所有	所有	高强度橡套电梯电缆	接近最多芯数样品 1 件
60245 IEC 75	所有	所有	氯丁或其他相当的合成弹性体橡套电梯电缆	接近最多芯数样品 1 件

Table 2 (continued)

<table>
<tr><th>Code designation concerned</th><th>Number of cores and nominal cross-sectional areas concerned</th><th>Colors</th><th>Type of cables and cords</th><th>Number and size of sample to be tested</th></tr>
<tr><td>60245 IEC 81</td><td>All</td><td>All</td><td>Rubber sheathed arc welding electrode cable</td><td>1 sample of approximately minimum cross-section,
1 sample of approximately maximum cross-section</td></tr>
<tr><td>60245 IEC 82</td><td>All</td><td>All</td><td>Polychloroprene or other equivalent synthetic elastomer sheathed arc welding electrode cable</td><td>1 sample of approximately minimum cross-section,
1 sample of approximately maximum cross-section</td></tr>
<tr><td>60245 IEC 04</td><td>All</td><td>All</td><td rowspan="2">Heat resistant ethylene-vinyl acetate rubber or other equivalent synthetic elastomer insulated, single-core, non-sheathed 750V cable for a maximum conductor temperature of 110□</td><td>1 sample of approximately minimum cross-section,
1 sample of approximately maximum cross-section
1 sample with solid conductor□
1 sample with strand conductor</td></tr>
<tr><td>60245 IEC 05</td><td>All</td><td>All</td><td>1 sample of approximately minimum cross-section,
1 sample of approximately maximum cross-section</td></tr>
<tr><td>60245 IEC 06</td><td>All</td><td>All</td><td rowspan="2">Heat resistant ethylene-vinyl acetate rubber or other equivalent synthetic elastomer insulated, single-core, non-sheathed 500V cable for a maximum conductor temperature of 110□</td><td>1 sample</td></tr>
<tr><td>60245 IEC 07</td><td>All</td><td>All</td><td>1 sample</td></tr>
<tr><td>60245 IEC 86</td><td>All</td><td>All</td><td>Rubber insulated and sheathed cords for applications requiring high flexibility</td><td>1 sample of approximately minimum cross-section and approximately maximum number of cores</td></tr>
<tr><td>60245 IEC 88</td><td>All</td><td>All</td><td>Cross-linked PVC(XLPVC) insulated and sheathed cords for applications requiring high flexibility</td><td>1 sample of approximately minimum cross-section and approximately maximum number of cores</td></tr>
<tr><td>60245 IEC 89</td><td>All</td><td>All</td><td>EPR insulated and braided cord for applications requiring high flexibility</td><td>1 sample of approximately minimum cross-section and approximately maximum number of cores</td></tr>
</table>

（续）

代号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60245 IEC 81	所有	所有	橡套电焊机电缆	接近最小截面样品 1 件，接近最大截面样品 1 件
60245 IEC 82	所有	所有	氯丁或其他相当的合成弹性体橡套电焊机电缆	接近最小截面样品 1 件，接近最大截面样品 1 件
60245 IEC 04	所有	所有	导体最高温度为 110℃的耐热乙烯-乙酸乙烯酯橡皮或其他相当的合成弹性体绝缘、单芯、无护套 750V 电缆	接近最小截面样品 1 件，接近最大截面样品 1 件，其中 1 件样品应为实心导体，1 件样品应为绞合导体
60245 IEC 05	所有	所有		接近最小截面样品 1 件，接近最大截面样品 1 件
60245 IEC 06	所有	所有	导体最高温度为 110℃的耐热乙烯-乙酸乙烯酯橡皮或其他相当的合成弹性体绝缘、单芯、无护套 500V 电缆	样品 1 件
60245 IEC 07	所有	所有		样品 1 件
60245 IEC 86	所有	所有	橡皮绝缘和护套特软电线	接近最多芯数和最小截面样品 1 件
60245 IEC 88	所有	所有	交联聚氯乙烯（XLPVC）绝缘和护套特软电线	接近最多芯数和最小截面样品 1 件
60245 IEC 89	所有	所有	乙丙橡皮（EPR）绝缘编织特软电线	接近最多芯数和最小截面样品 1 件

14. Operation of Component Recognition Program (CRP)

OD-CB2036-Ed.1.1

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14. 零部件认可计划 (CRP)

操作文件

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1 Introduction

1.1 The purpose of this OD is to provide a mechanism for the mutual acceptance of component test reports as part of the process of evaluating end-products. The CRP does not qualify an NCB to issue CB Test Certificates for components.

1.2 The Component Recognition Program (CRP) facilitates mutual acceptance of critical components evaluated to either IEC component standards, with/without National Differences, or to non-harmonized National component standards.

1.3 The fact that the IECEE provides a method to address testing and acceptance of component related National Differences does not diminish the importance of Member Bodies taking action to harmonize with IEC component standards. The capability to test components to the appropriate IEC component standards is a requirement for all CRP participants.

2 Definitions

2.1 Non-harmonized National component standard – A national standard that is not based on an international (ISO, IEC) standard, or has no corresponding international standard.

2.2 Critical Component – Any component in a particular application, where a failure, defect or malfunction would directly or indirectly result in a safety hazard.
Note: These are the components that are required to be listed and described in the CB Test Report.

3 Concept Outline

3.1 The following component scenarios are covered by the CRP:

a) IEC component standards without national differences
b) IEC component standards with national differences
c) A non-harmonized national component standard - where an IEC standard exists
d) A non-harmonized national component standard - where no IEC standard exists

The acceptance of components among countries that have adopted IEC component standards is covered by the existing IECEE basic rules and procedures.

3.2 The CRP comprises the following elements:

3.2.1 Full disclosure of:
a) all National Differences in end-products standards, including differences for components integrated in to end-products;
b) any additional technical/procedural requirements necessary to facilitate the acceptance of component test reports, such as Body B component-related policies*, testing methods, specific test equipment and facilities;

1. 介绍

1.1　该操作文件的目的是提供一种零部件测试报告的互认机制，作为整机评估程序的一部分。CRP 并不使 NCB 享有发布零部件 CB 测试报告的资格。

1.2　零部件认可计划（CRP）促进了符合 IEC 标准（无论有无国家差异）或非协调国家标准的关键零部件的互认。

1.3　IECEE 提供与国家差异相关的零部件测试和认可办法，并不降低其成员机构采取行动与 IEC 零部件标准相协调的重要性。所有 CRP 参与者都要求具备遵循相关 IEC 标准对零部件进行测试的能力。

2. 定义

2.1　非协调零部件国家标准——不基于国际标准（ISO、IEC）的、或者没有对应国际标准的国家标准。

2.2　关键零部件——在某个特定的应用场合下，当失效、损坏或故障时会直接或间接地危害安全的任何零部件。

注：这些零部件在 CB 测试报告中需要列出并描述。

3. 概述

3.1　CRP 涵盖以下零部件情形：

a）无国家差异的 IEC 零部件标准；

b）有国家差异的 IEC 零部件标准；

c）非协调零部件国家标准—存在相应 IEC 标准；

d）非协调零部件国家标准—不存在相应 IEC 标准。

采用 IEC 零部件标准的国家之间的零部件互认由现有的 IECEE 基本规则和程序涵盖。

3.2　CRP 包括以下部分：

3.2.1　完整地阐述：

a）整机标准中的所有国家差异，包括整合在整机中的零部件差异；

b）促进零部件测试报告认可所必要的任何附加技术/程序要求，如机构 B 的零部件相关政策*、测试方法、特殊的测试仪器与设备。

such that Body B shall accept components tested to those requirements by NCBs/CBTLs that are 'qualified' CRP participants once they have been assessed and accepted.

Note: Such as initial acceptance of components,follow up inspection,and periodic retesting.
Additional component surveillance criteria may be detailed by the CMC WG8/FASP.

3.2.2 For qualification of NCBs/CBTLs to evaluate components for acceptance in end-product, and completion of the Component Test Reports (CTR) for critical components, the NCBs/CBTLs are assessed to verify their component testing capability in accordance with this OD. This procedure covers the following two scenarios:

a) NCBs / CBTLs currently recognized for IEC component standards – will be evaluated for testing to declared non-harmonized National component standards,
b) NCBs / CBTLs not currently recognized for IEC component standards – will be assessed for testing to both the IEC and the non-harmonized National component standards.

Note 1: The assessment teams for non–harmonized component standards should possess the relevant tec-hnical expertise.
Note 2: This does not change the current scope and rules for issuing a component CB test certificate.

4 Responsibilities of Member Bodies and NCBs

4.1 Pre-requisites (mandatory) for all Member Bodies and NCBs currently participating in the CB scheme or CB FCS are as follows.

4.2 For each end-product standard for which a Member Body has declared Adherence for participation in the CB Scheme or FCS (not only CRP participants), the Member Body as appropriate shall provide:

a) Declaration of the details of national differences to IEC component standards.
   - Supplementary TRFs for IEC component standards, covering the National Differences.

b) Declaration of the details of non-harmonized National component standards. TRFs based on OD-CB2020 for non-harmonized National component standards that includes:
   - description of any specific test methods

   Note: this must be attached to the TRF if not adequately described in the standard
   - list of required test equipment, testing facilities

   Note: this must be attached to the TRF

c) Declaration from each NCB of applicable component acceptance policies and administrative procedures, if any, including for example, surveillance policy applicable to FCS.

4.3 The Member Bodies are responsible for the above declarations and must keep them declarations current and inform the IECEE Secretariat of any changes.

Note: In the interim, the Member Body should strive to achiev harmonisation of the relevant standards.

一旦 NCB/CBTL 通过评审认可并成为合格的 CRP 参与者，那么认证体 B 应认可他们根据上述要求进行测试的零部件。

注：诸如零部件的首次认可、后续检查、定期复测。附加的零部件监督标准细则可由 CMC WG8/FASP 给出。

3.2.2 对于 NCB/CBTL 是否有资格为整机进行零部件评价以及完成关键零部件的测试报告，将根据这份操作文件对 NCB/CBTL 进行零部件测试能力验证。该程序涵盖以下两种情形：

a）当前已获 IEC 零部件标准授权的 NCB/CBTL：将按照申报过的非协调零部件国家标准进行评审。

b）当前未获 IEC 零部件标准授权的 NCB/CBTL：将按照 IEC 标准以及非协调零部件国家标准进行评审。

注 1：非协调零部件国家标准的评审组应具备相关的技术水平。

注 2：这并不改变颁发零部件 CB 测试证书的现有范围和规则。

4. 成员机构和 NCB 的职责

4.1 当前参与 CB 体系或 CBFCS 的所有成员机构及 NCB 应具备的必要条件（强制性）如下：

4.2 对声明参与 CB 体系或 FCS 的每个整机标准，成员机构（不仅指 CRP 的参与者）需提供：

a）对于 IEC 零部件标准的国家差异的详细声明。

• 覆盖国家差异的 IEC 零部件标准的 TRF 补充格式。

b）对于非协调零部件国家标准的详细声明。对非协调的零部件国家标准，基于 OD-CB2020 的 TRF 格式包括：

• 任何特殊测试方法的描述

注：若标准中没有充分描述，则必须附在 TRF 中。

• 所需测试仪器设备的清单

注：必须附在 TRF 中。

c）各个 NCB 关于适用的零部件认可政策以及管理程序的声明（如有的话），包括诸如适用于 FCS 的监督政策。

4.3 成员机构对以上声明负责且必须及时更新这些声明，并将任何变更告知 IECEE 秘书处。

注：在此期间，成员机构应尽力实现相关标准的协调性。

5 Requirements Applicable to CB Scheme and FCS

5.1 For FCS signatories only, the NCB must declare differences from the procedures in IECEE 03, Clause 16, regarding the type of required surveillance and frequency, any "other conditions" placed on the continuing certification of the component must be declared.

Note: see FCS Operation Guides as necessary [IECEE/WG8]-Factory Audit Program may develop changes to IECEE 03 in the future.

5.2 Application by NCB for 'qualification' as Participant in the CRP:

5.2.1 NCB shall make an application, as per IECEE 02, for specified IEC or non-harmonized National component standards to which the NCB/CBTL wishes to have its test reports recognized by Bodies B.

5.2.2 The application shall include details on testing capability for each component standard (either IEC or non-harmonized National component standard), for example; test facilities, test equipment, experience, staff, etc.

5.3 Qualification of participants' testing capabilities, according to OD-CB2007:

5.3.1 If Body A is currently accepted in the Schemes for IEC components standards, this additional qualification applies only for testing and assessment to specified Body B non-harmonized National component standards:

a) Review of an application under the CRP by CRP reviewers appointed by the IECEE Executive Secretary. On-site assessment may or may not be required as determined by the reviewers. An example of a needed on-site assessment could be for non-harmonized National component standard that is not similar to the IEC component standard. Should on-site assessment be deemed necessary, it should be combined with another scheme re-assessment where practical.

   Note: The Assessment procedure used by the CRP reviewers is the same as for any other scheme assessment.

b) To determine competency, a review of a minimum of three (3) completed test report based on the non-harmonized component standard is required to be completed within a two (2) year span.

5.3.2 If Body A is not currently accepted in the Schemes for the IEC component standard, qualification is required for testing to specified IEC component standards and non-harmonized Body B National component standards:

a) Review of an application by appointed "CRP reviewers". On-site assessment will be required but should be combined with another scheme re-assessment where practical.

   Note: The assessment procedure used by the CRP reviewers is the same as any other CB assessment.

b) To determine competence, the pre-requisite is a minimum of ten (10) completed test reports within a two (2) year period. The minimum of ten (10) completed test reports shall include a minimum of three (3) completed test reports based upon

5. 适用于 CB 体系和 FCS 的要求

5.1　仅对于 FCS 的签署方，NCB 必须提供与 IECEE 03 第 16 条条款中关于所要求监督型式和频率有关内容的差异声明，任何出现在零部件后续认证中的“其他条件”必须声明。

注：必要时参见 FCS 操作指南［IECEE/WG8］——工厂审查程序今后可能导致 IECEE 03 的变更。

5.2　NCB 对于 CRP 参与资格的申请：

5.2.1　NCB 应按照 IECEE 02 对特定 IEC 标准或非协调零部件国家标准提出申请，NCB/CBTL 希望依照这些标准出具的测试报告能够被认证机构 B 认可。

5.2.2　申请应包括对各个零部件标准（IEC 标准或非协调零部件国家标准）测试能力的详细情况，如测试设施、测试设备、测试经验、人员等。

5.3　关于参与者测试能力的资格确认，遵照 OD-CB2007：

5.3.1　若在体系范围内机构 A 当前已获 IEC 零部件标准的授权，这个附加的资格确认仅适用于特定机构 B 的非协调零部件国家标准的测试和评审。

a）IECEE 执行秘书任命的 CRP 审查员对 CRP 程序内的申请进行审核。评审员决定是否要求现场评审。一个需要现场评审的例子是与 IEC 零部件标准不相似的非协调零部件国家标准。如果认为现场评审必要，可行时它应与体系的复评审相结合。

注：CRP 评审员使用的评审程序与其他 CB 评审相同。

b）为了确定资格，要求申请者在两年内依据非协调零部件国家标准出具至少三份测试报告要求。

5.3.2　若在体系范围内，机构 A 当前未获 IEC 零部件标准的授权，则需要对特定的 IEC 零部件标准和机构 B 的非协调国家标准进行测试评审。

a）由指定的 CRP 评审员对申请进行审核。需要现场评审，但可行时应与体系内另外的复评审相结合。

注：CRP 评审员使用的评审程序与其他 CB 评审相同。

b）为了确定资格，必要条件为两年时间内至少完成十份完整的测试报告。这十份测试报告必须包括至少三份基于国家零部件标准的完整测试报告和至少三份基于 IEC 零部件标准的完整测试报告。

注：机构 A 可采用研讨会的方法学习 IEC 零部件标准以及非协调零部件国家标准的要求。

the national component standard and a minimum of three (3) completed test reports based upon the IEC component standard.

Note: One method for Body A to learn about the requirements of IEC component standards and non-harmonizd National component standard would be a workshop.

6 Operation

6.1 When testing and evaluating components in end-products to IEC and non-harmonized National component standards a CRP qualified body shall:

a) Test components in accordance with procedures based on the relevant supplementary TRFs of the target country for the National Differences to an IEC component standard or for the non-harmonized National component standards (TRFs created by the responsible member body).
b) Document test results on the component supplementary TRFs and attach to the end-product Test Report;
c) In FCS:
   - if a component is under a national certification, Body A shall identify the certification body or bodies in the Conformity Assessment Report (CAR). Body A shall provide Body B relevant component Test Report and certification information for a component as part of End-Product Conformity Assessment Report (CAR);
   - For non-certified components, Body A shall issue a Component Test Report (CTC) for critical components as part of the of the end-product Conformity Assessment Report (CAR). The CAR shall state whether the component is under its surveillance, and if so, include a summary of inspection procedures and the frequency
   - The surveillance report shall be provided if requested by Body B and authorized by the manufacturer.

The component test reports shall contain sufficient information that will enable the Bodies B to easily verify compliance with their National differences or non-harmonized National component standards. Body A issues Component Test Report (CTR) for critical components as part of the End-Product CB Test Report (CBTR).

6.2 Acceptance of Components in end-products

National Certification is being issued based upon a CB Test Report (CBTR) for end-product which includes one or more Component Test Reports (CTRs) for critical components.

a) Body B reviews the component Test Reports for completeness and refers any questions to Body A.
b) Body B must accept the component test report /CB Test Certificate on the same basis as the end-product CB Test Certificate, as specified in IECEE 02 clause 6.3.
c) In FCS, for components:
   Acceptance of Components in end-products by Body B is based upon a Conformity Assessment Report (CAR) which includes either component certification information, or one or more Component Test Reports for critical components:

6. 操作

6.1 按照 IEC 标准或者非协调零部件国家标准对整机中的零部件进行测试和评估时，一个具有 CRP 资格的机构应：

a）按照目的国与 IEC 零部件标准之间的国家差异或非协调国家标准相关的 TRF 补充格式的程序，开展零部件测试（TRF 由责任成员机构编制）。

b）按零部件补充 TRF 格式归档测试结果并附在整机测试报告后。

c）在 FCS 中：

- 如果一个零部件已获国家认证，机构 A 应在合格性评定报告（CAR）中标明相应的认证机构。机构 A 应给机构 B 提供零部件测试报告和认证信息，以作为整机合格性评定报告（CAR）的一部分。
- 对于无认证的零部件，机构 A 应签发关键零部件的测试报告，作为整机合格性评定报告（CAR）的一部分。CAR 应声明零部件是否受其监督，若是，须包括检查程序和频次的概述。
- 若机构 B 需要且制造商已授权，则应提供监督报告。

零部件测试报告应包含充分的信息，使机构 B 能够容易地核实该零部件与其国家差异或非协调零部件国家标准的符合性。机构 A 发布作为整机 CB 测试报告（CBTR）一部分的关键零部件的测试报告。

6.2 整机产品中零部件的认可

利用包含一个或多个关键零部件测试报告（CTRs）的整机产品 CB 报告（CBTR），以获得国家认证。

a）机构 B 核查 CTR 的完整性并提交任何相关问题给机构 A。

b）根据 IECEE 02 第 6.3 条条款的规定，机构 B 必须以认可整机 CB 测试证书相同的原则，认可零部件测试报告/CB 证书。

c）对于在 FCS 体系中的零部件：

机构 B 对整机中零部件的认可基于合格性评定报告（CAR），该报告包括零部件认证信息或者一个或多个关键零部件的测试报告：

- with valid (CB or National) certification, Body B obtains (example: from the component certification body or the manufacturer) and reviews the component surveillance program information for completeness, and refers questions to the component certification body identified in the certificate.

  Note: Body B is expected to accept the component without a supplemental surveillance program

- For components without valid certificates, Body B:
  - Checks with Body A if component surveillance has been performed within the last 12 months, and may request a surveillance report from Body A.
  - Refers questions to the component certification body identified in the report.

Body B accepts the end-product CBTR and Component Test Report(s) (CTR(s)).

• 如有有效的 CB 或国家认证证书，机构 B 获取（例如：通过零部件测试机构或生产商）和核查零部件监督程序信息的完整性，并提交问题给证书中标明的零部件认证机构。

注：希望机构 B 不经过附加监督程序而认可零部件。

• 对于没有有效证书的零部件，机构 B：

应与机构 A 核实，在过去的 12 个月内是否进行过零部件监督，并可向机构 A 索要监督报告。

○ 提交问题给报告中标明的零部件测试机构。

○ 机构 B 认可整机 CB 报告（CBTR）以及零部件测试报告（CTR（s））。

ANNEX A

[WG5 note: These Annexes have been combined to the same page to save space when printing. They will be separated again should contents for Annex A become available from the TRF working Group]

ANNEX B

1. DOCUMENTATION FOR APPLICATIONS

1.1 CRP Application for non-harmonized National standard or IEC Standard (mod. OD-CB 2010, mod. OD-CB 2011, OD-CB 2013, OD-CB 2020 and OD-CB 2022, Annex 1)

1.2 Application letter from the candidate NCB

1.3 If the candidate NCB/CBTL(s) is/are accredited, Accreditation Certificate(s) covering the relevant scope

2. ASSESSMENT DOCUMENTATION

2.1 Training records for special National standard(s)

2.2 Test equipment and facilities for special National standard(s)

2.3 Test protocols and work instructions

2.4 List of completed tests

2.5 Inspection/surveillance procedures/ documentation/ personnel

2.6 Procedures regarding the acceptance of certified sub-components/materials

附　录　A

[WG5 注：为了节省空间，这些附录在打印时并为一页。从 TRF 工作组获取附录 A 内容时将重新分页]

附　录　B

1. 申请文件

1.1　针对非协调零部件国家标准和 IEC 标准的 CRP 申请（OD-CB 2010、OD-CB 2011、OD-CB 2013、OD-CB 2020 及 OD-CB 2022 附录 1）

1.2　候选 NCB 提供的申请书

1.3　若候选 NCB/BCTL 已获认可，覆盖相关领域的认可证书

2. 评审文件

2.1　特定国家标准的培训记录

2.2　特定国家标准所需的测试仪器设备

2.3　测试方案和作业指导书

2.4　已完成测试的清单

2.5　检查/监督程序/文件/人员

2.6　已获认证零部件/材料的认可程序

CRP PROCESS FLOWCHART

Note: FCS includes all CB scheme steps

Activity	Body A	Body B	IECEE Secretariat	CRP Assessment Team	Manufacturer
Declaration - CB Scheme		Declare national differences, provide related component TRFs →			
- FCS		Declare differences from Clause 16 in IECEE 03 →			
Application	File application with required documentation →				
			Appoints and activates the CRP Assessment Team →		

CRP 程序流程图

注：FCS 包含了 CB 体系的所有步骤

活动	机构 A	机构 B	IECEE 秘书处	CRP 评审组	制造商
声明——CB 体系		声明国家差异，提供相关零部件的 TRF 格式			
-FCS		声明与 IECEE 03 中条款 16 的差异			
申请	提出申请，提供所需文档				
			任命并成立 CRP 评审组		

Activity	Body A	Body B	IECEE Secretariat	CRP Assessment Team	Manufacturer
Qualification				Reviews application documents. Carries out assessment, as necessary_with the concurrence of the IECEE Secretary	
	Carries out corrective actions as necessary and reports to assessment team				
				Recommendations to IECEE Secretariat	
			Approves and notifies applicant, updates IECEE website		
Operation - CB Scheme	Evaluates components in end-products, completes documentation				
					Applies to Bodies B
		Refers component questions to Body A			
	Provides clarifications as necessary				

活动	机构 A	机构 B	IECEE 秘书处	CRP 评审组	生产商
资格确认				审核申请文件，经 IECEE 秘书处同意必要时进行评审	
	← 必要时采取整改措施并向评审组报告 →				
				推荐给 IECEE 秘书处	
			← 批准并通知申请者，更新 IECEE 网站		
操作——CB 体系	评价整机中的零部件，完成文档 →				
					向机构 B 申请
		← 向机构 A 提交零部件的问题			
	← 必要时提供解释 →				

Activity	Body A	Body B	IECEE Secretariat	CRP Assessment Team	Manufacturer
		Issues National certification for the end-product → (to Manufacturer)			
------------------- - FCS	--------------------- In addition to the above, the CAR provides ID of Component Certification Body → (to Manufacturer) or on request, details of own surveillance on the component with their statement → (to Body B)	----------------------- Body B accepts the component surveillance (by either the component certifier or Body A)	--------------------	-----------------------	--------------------

活动	机构 A	机构 B	IECEE 秘书处	CRP 评审组	生产商
		发布整机国家认证 →			
—FCS	除以上部分，CAR 还提供零部件认证机构的 ID →				
	或在要求时，提供自身对零部件监督的详细内容和申明 →				
		机构 B 认可（零部件认证机构或机构 A）对零部件的监督			

4 Responsibilities of Member Bodies and NCBs

(Whether or not they participate in the CRP)

CB Scheme CRP Flowchart

4.1 Pre-requisites (mandatory) for all Member Bodies and NCBs currently participating in the CB Scheme or FCS are as follows.

4.2(a) For each end-product standard for which a Member Body has declared Adherence for participation in the CB Scheme or FCS (not only CRP participants), the Member Bodies as appropriate shall provide:

Declaration of the details of National Differences to IEC component standards.

- supplementary TRFs for IEC component standards, covering the National Differences.

4.2(b) Declaration of the details of non-harmonized Body B National component standards
TRFs based on OD-CB2020 for non-harmonized National Body B component standards that includes:

- description of any specific test methods Note: this must be attached to the TRF if not adequately described in the standard.
- list of required test equipment, testing facilities.
  Note: this must be attached to the TRF.

4.2(c) Declaration from each NCB of applicable component acceptance policies and administrative procedures, if any, including for example, surveillance policy applicable to FCS.

4.3 The Member Bodies are responsible for the above declarations (Sub-clause 4.2) and must keep the declarations current and inform the IECEE Secretariat of any changes.
Note: In the interim, the Member Body should strive to achieve harmonisation of the relevant standards.

4 成员机构及 NCB 的职责

（无论它们是否参与 CRP）

CB 体系 CRP 流程图

4.1 当前参与 CB 体系或 CB-FCS 的所有成员机构及 NCB 应具备的必要条件（强制性）如下

4.2（a） 对声明参与 CB 体系或 FCS 的每个整机标准，成员机构（不仅仅指 CRP 的参与者）需提供：

对于 IEC 零部件标准国家差异的详细声明

- 覆盖国家差异的 IEC 零部件标准的 TRF 补充格式

4.2（b） 对于机构 B 的非协调零部件国家标准的详细声明

对机构 B 的非协调零部件国家标准，基于 OD-CB2020 的 TRF 文件包括：

- 任何特殊测试方法的描述

注：若标准中没有充分描述，则必须附在 TRF 中。

- 所需的测试设备清单

注：必须附在 TRF 中。

4.2（c） 各个 NCB 关于适用的零部件认可政策以及管理程序的声明（如有的话），包括诸如适用于 FCS 的监督政策。

4.3 成员机构对以上声明（子条款 4.2）负责且必须及时更新这些声明，并将任何变更告知 IECEE 秘书处。

注：在此期间，成员机构应尽力实现相关标准的协调性。

5 Requirements Applicable to CB Scheme
CB Scheme CRP Flowchart

5 Qualification Process

5.2 - Application by NCB for "qualification" as Participant in the CRP

5.2.1 - NCB shall make an application, as per IECEE 02, for specified IEC or non-harmonized National Body B component standards to which the NCB/CBTL wishes to test and be recognized by Bodies B.

5.2.2 - The application shall include details on testing capability for each component standard (either IEC or non-harmonized National Body B component standard), for example: test facilities, test equipment, experience, staff, etc.

5.3 - Qualification of the participant's testing capabilities, according to OD-CB2007:

Is Body A currently accepted in the Schemes for IEC component standards? (5.3.1 or 5.3.2)

Yes (5.3.1)

No (5.3.2)

Yes (5.3.1):

5.3.1 - This additional qualification applies only for testing and assessment to specified non-harmonized National Body B component standards:

5.3.1(a) - Review of an application under the CRP by CRP reviewers appointed by IEC Executive Secretary. On-site assessment may or may not be required as determined by the reviewers. An example of a needed on-site assessment could be for a non-harmonized National Body B component standard that is not similar to the IEC component standard. Should on-site assessment be deemed necessary, it should be combined with another Scheme re-assessment where practical.

Note: The Assessment procedure used by the CRP reviewers is the same as for any other Scheme assessment.

5.3.1(b) - To determine competency, a review of a minimum of one completed test report based on the non-harmonized National Body B component standard is required.

No (5.3.2):

5.3.2 - Qualification is required for testing to specified IEC component standards and non-harmonized National Body B component standards:

5.3.2(a) - Review of an application by appointed "CRP reviewers." On-site assessment will be required but should be combined with another Scheme re-assessment where practical.

Note: The Assessment procedure used by the CRP reviewers is the same as for any other Scheme assessment.

5.3.2(b) - To determine competence, the pre-requisite is a minimum of ten (10) completed test reports within a two (2) year period. The minimum of ten (10) completed test reports shall include a minimum of three (3) completed test reports based upon the national component standard and a minimum of three (3) completed test reports based upon the IEC component standard.

Note: One method for Body A to learn about the requirements of IEC component standards and non-harmonized National Body B component standards would be a workshop.

5 CB 体系的适用要求
CB 体系 CRP 流程图

5 资格确认程序

5.2 NCB 对于 CRP 参与资格的申请

↓

5.2.1 NCB 应按照 IECEE 02 对特定 IEC 标准或非协调零部件国家标准提出申请，NCB 希望依照这些标准进行测试并希望认证机构 B 认可。

5.2.2 申请应包括对各个零部件标准（IEC 标准或成员机构 B 的非协调零部件国家标准）测试能力的详细情况，如测试设施、测试设备、测试经验、人员等。

5.3 关于参与者测试能力的资格确认，遵照 OD-CB2007：

↓

成员机构 A 当前是否在体系范围内获 IEC 零部件标准授权 (5.3.1 或 5.3.2)

是 (5.3.1)

5.3.1 这个附加的资格确认仅适用于特定的机构 B 的非协调零部件国家标准的测试评审：

5.3.1(a) IECEE 执行秘书任命的 CRP 审查员对 CRP 程序内的申请进行审核。评审员决定是否要求现场评审。一个需要现场评审的例子是与 IEC 零部件标准不相符的非协调零部件国家标准。如果认为现场评审必要，可行时它应与体系的复评审相结合。

注：CRP 评审员使用的评审程序与其他 CB 评审相同。

5.3.1(b) 为了确定资格，要求申请者在两年内依据非协调零部件国家标准出具至少三份测试报告。

否 (5.3.2)

5.3.2 需要对特定的 IEC 零部件标准和机构 B 的非协调国家标准进行测试评审：

5.3.2(a) 由指定的 CRP 评审员对申请进行审核。需要现场评审，但可行时应与体系内另外的复评审相结合。

注：CRP 评审员使用的评审程序与其他 CB 评审相同。

5.3.2(b) 为了确定资格，必要条件是两年时间内完成至少十份完整的测试报告。这十份测试报告必须包括至少三份基于国家零部件标准的完整测试报告和至少三份基于 IEC 零部件标准的完整测试报告。

注：机构 A 可采用研讨会的方法学习 IEC 零部件标准以及机构 B 的非协调零部件国家标准的要求。

6 Operation
CB Scheme CRP Flowchart

NCB Issuing CB Test Report (Body A)

Component being evaluated in end-product as part of CB Test Report

↓

6.1 When testing and evaluating components in end-products to IEC and non-harmonized National Body B component standards a CRP qualified body shall:

6.1(a) Test components in accordance with procedures based on the relevant supplementary TRFs of the target country for the National Differences to an IEC component standard or for the non-harmonized National Body B component standards (TRFs created by the responsible Member Body).

6.1(b) Document test results on component TRFs, including any supplementary TRFs attached to the end-product Test Report.

6.1 *(continued)*The component test reports shall contain sufficient information that will enable Bodies B to easily verify compliance with their National Differences or non-harmonized National Body B component standards. Body A issues Component Test Report (CTR) for critical components as part of the End-Product CB Test Report (CBTR).

6 操作

CB 体系 CRP 流程图

发布 CB 测试报告的 NCB（机构 A）

作为 CB 测试报告的一部分、在整机中进行评价的零部件。

↓

6.1 按照 IEC 标准或者非协调零部件国家标准对整机中的零部件进行测试和评估时，一个具有 CRP 资格的机构应：

6.1（a） 按照目的国与 IEC 零部件标准之间的国家差异或非协调国家标准相关的 TRF 补充格式的程序，开展零部件测试（TRF 由责任成员机构编制）。

6.1（b） 按零部件补充 TRF 格式归档测试结果，包括附在整机测试报告后的任何 TRF 补充格式

6.1（续） 零部件测试报告应包含充分的信息，使机构 B 能够容易地核实该零部件与其国家差异或机构 B 的非协调零部件国家标准的符合性。机构 A 发布作为整机 CB 测试报告（CBTR）一部分的关键零部件的测试报告（CTR）。

6 Operation

CB Scheme CRP Flowchart

↓

NCB Receiving CB Test Report (Body B)

↓

6.2 - Acceptance of Components in End-Products
National Certification is being issued based upon a CB Test Report (CBTR) for end-product which includes one or more Component Test Reports (CTRs) for critical components.

↓

6.2(a) Body B reviews the component Test Reports for completeness and refers any questions to Body A.

↓

6.2(b) - Body B must accept the component test report/ CB Test Certificate on the same basis as the end-product CB Test Certificate, as specified in IECEE 02, Sub-clause 6.3

↓

6.2 *(continued)* Body B accepts the end-product CBTR and Component Test Report(s) (CTR(s)).

6　操作

CB 体系 CRP 流程图

↓

接受 CB 测试报告的 NCB（机构 B）

↓

6.2　整机产品中零部件的认可 利用包含一个或多个关键零部件测试报告（CTRs）的整机产品 CB 报告（CBTR），以获得国家认证。

↓

6.2（a）　机构 B 核查零部件测试报告的完整性并提交问题给机构 A。

↓

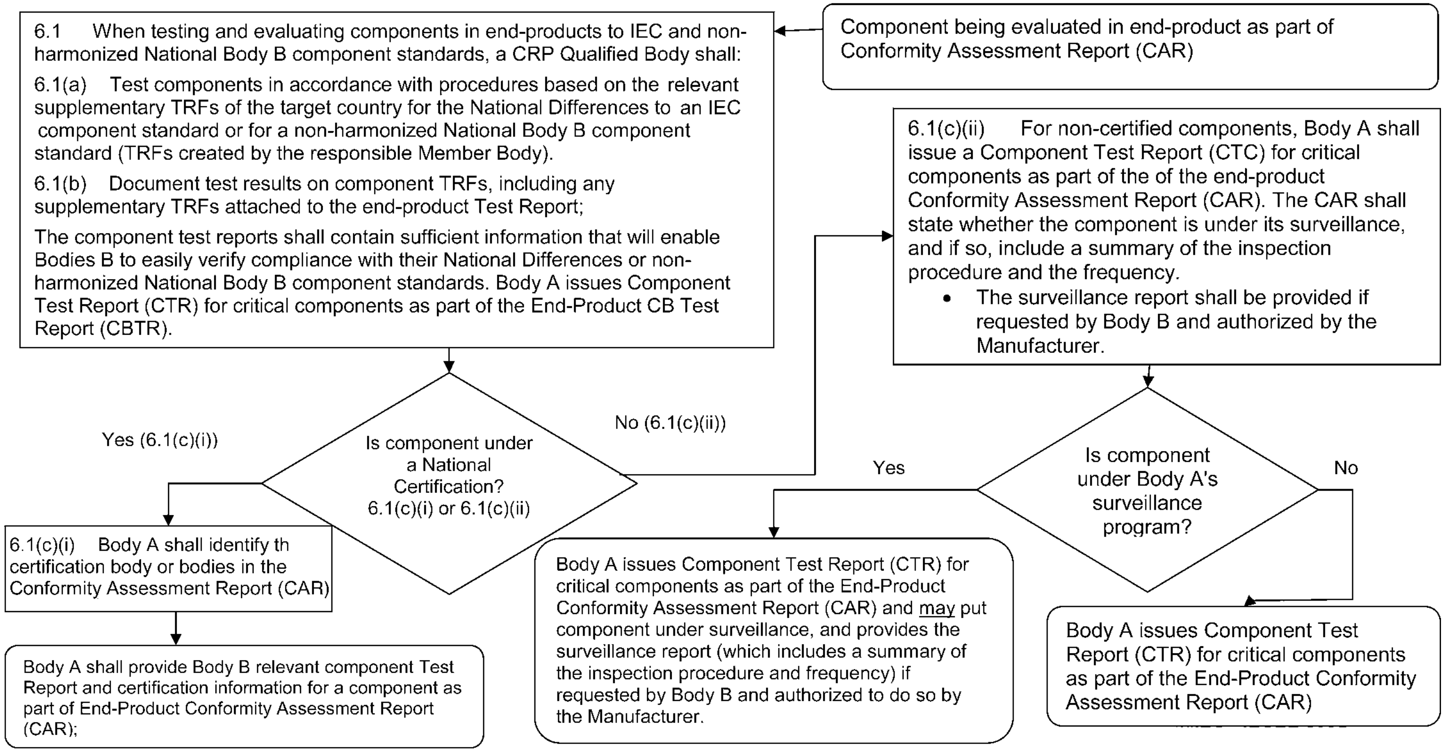
6.2（b）　根据 IECEE 02 第 6.3 条条款的规定，机构 B 必须以认可整机 CB 证书相同的原则，认可零部件测试报告/CB 证书。

↓

6.2（续）机构 B 认可整机 CB 报告（CBTR）以及零部件测试报告（CTR（s））。

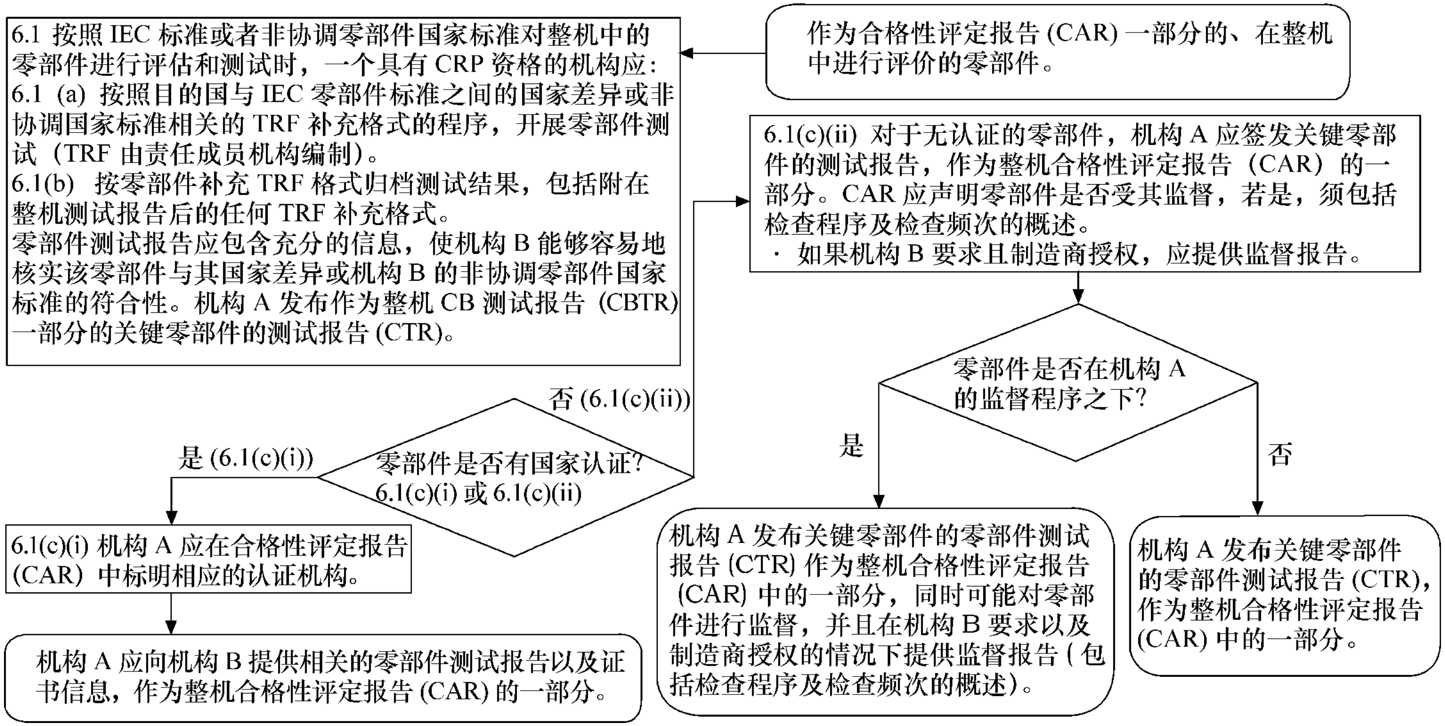
6 Operation - CB-FCS CRP

NCB Issuing Conformity Assessment Report (Body A)



6 操作 — CB-FCS CRP

发布合格性评定报告的 NCB(机构 A)



6 Operation - CB-FCS CRP

NCB Receiving Conformity Assessment Report (Body B)

6.2 Acceptance of Components in End-Products
Acceptance of Components in end-products by Body B is based upon a Conformity Assessment Report (CAR) which includes either component certification information, or one or more Component Test Reports for critical components:
6.2(a) Body B reviews the component Test Report for completeness and refers any questions to Body A.
6.2(b) Body B must accept the component test report/ CB Test Certificate on the same basis as the end-product CB Test Certificate, as specified in IECEE 02, Sub-clause 6.3

Does the component have a valid (CB or National) certificate? 6.2(c)

Yes (6.2(c)(1st bullet))

6.2(c) (1st bullet) - Body B obtains (example: from the component certification body or the manufacturer) and reviews the component surveillance program information for completeness, and refers questions to the component certification body identified in the certificate.
Note: Body B is expected to accept the component without a supplemental surveillance program.

Body B accepts the end-product Conformity Assessment Report (CAR) and component certification information for critical components, issues their National Certification or Approval for the end-product, and may put the end-product under its surveillance program (No additional surveillance program is established for the comnonent)

No (6.2(c)(2nd bullet))

6.2(c) (2nd bullet) - Body B checks with Body A if a component surveillance has been performed within the last 12 months, and may request a surveillance report from Body A. Body B refers questions to the component certification body identified in the report.

Is Body B satisfied with the component surveillance program of Body A?

Yes

Body B accepts the end-product Conformity Assessment Report (CAR) and Component Test Report (CTR) for critical components, issues their National Certification or Approval for the end-product, and may put the end-product under its surveillance program (No additional surveillance program is established for the component).

No

Body B accepts the end-product Conformity Assessment Report (CAR) and Component Test Report (CTR) for critical components, issues their National Certification or Approval, and may put the component and the end-product under its surveillance program.

IEC-IECEE 2005

6 操作 — CB-FCS CRP

接受合格性评定报告的 NCB(机构 B)

6.2 整机中零部件的认可
机构 B 对整机中零部件的认可基于合格性评定报告 (CAR), 该报告包括零部件证书信息或者一个或多个关键零部件的零部件测试报告:
6.2(a) 机构 B 核查零部件测试报告的完整性并提交问题给机构 A。
6.2(b) 根据 IECEE 02 第 6.3 条款的规定，机构 B 必须以认可整机 CB 证书相同的原则，认可零部件测试报告 /CB 证书。

零部件是否具备有效的（CB 或者国家）认证？6.2(c)

是 (6.2(c)(第一条))

6.2(c)(第一条)- 机构 B 获取（例如：通过零部件认证机构或生产商）并核查零部件监督程序信息的完整性，同时提交问题给证书中标明的零部件认证机构。
注：希望机构 B 不经过附加监督程序而认可零部件。

机构 B 认可整机合格性评定报告 (CAR) 以及关键零部件的零部件证书，为整机发布其国家认证或许可，并且可能将整机置于其自身的监督程序下 (没有为零部件建立的额外监督程序)。

否 (6.2(c)(第二条))

6.2(c)(第二条) - 应与机构 A 核实，在过去的 12 个月内是否进行过零部件监督，并可向机构 A 索要监督报告。机构 B 可提交问题给报告中标明的零部件测试机构。

机构 B 对机构 A 的零部件监督程序是否满意?

是

机构 B 认可整机合格性评定报告 (CAR) 以及关键零部件的零部件测试报告 (CTR)，为整机发布其国家认证或许可，并且可能将整机置于其自身的监督程序下 (没有为零部件建立的额外监督程序)。

否

机构 B 认可整机合格性评定报告 (CAR) 以及关键零部件的零部件测试报告 (CTR)，发布其国家认证或许可，并且可能将零部件和整机置于其自身的监督程序下。

IECEE

CB-SCHEME OD-CB2039-Ed.1.0

OPERATIONAL & RULING DOCUMENTS

15. Acceptance of Components within the IECEE-CB Scheme and Component Acceptance Matrix

OD-CB2039-Ed.1.0 IEC - IECEE 2007 - Copyright

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15.IECEE-CB 体系中对零部件的认可和零部件认可矩阵表

OD-CB2039-Ed.1.0 IEC - IECEE 2007

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Introduction

This operational document contains definitions and basic principles for acceptance of components within the IECEE CB Scheme. The intended implementation of this document is to enhance the common understanding among the National Certification Bodies (NCBs) participating in the Scheme of the various component acceptance scenarios encountered by the members, as well as, to establish a minimum proof of component compliance with the applicable acceptance criteria expected in the CB Test Reports. Any differences between the requirements in this operational document and corresponding requirements of the NCB shall be clearly identified and published in the CB Bulletin and in the Component Acceptance Matrix.

The Component Acceptance Matrix (CAM) is part of the component acceptance process. It was prepared to provide information on the level of harmonization with the IEC standards among the participating countries. The database should also assist the National Certification Bodies and CB Testing Laboratories in the compilation of the CB Test Reports by making the requirements for components more transparent.

Today, IECEE has two procedures in dealing with acceptance of components in the end products. This Operational Document describes “generic” approach to component acceptance. Component acceptance declarations prepared by the NCBs are a tool for improving component acceptance under the “generic” approach.

A specialized recognition process is described in Operational Document CB2036 for Component Recognition Program (CRP), which provides a mechanism for the mutual acceptance of test reports covering components without CB Test Certificates. The Component Recognition Program (CRP) facilitates mutual acceptance of critical components evaluated to either IEC component standards, with/without National Differences, or to non-harmonized National component standards and is one of the available options for component acceptance in the CB Scheme. See clause 5.1.1.4.

1. Scope:

This document describes component related situations and decisions in the process of issuing and accepting CB Test Reports and Certificates for end products. It also provides requirements and clarifications for the use of Component Acceptance Matrix.

2. Definitions:

2.1 Component

For the purpose of this document a component has been defined as follows:
Component – a part or a subassembly intended to be installed into an end product in a factory by the end-product manufacturer. Some examples are: switches for appliances,

引言

本操作文件包括 IECEE-CB 体系中有关零部件认可的基本原则和定义。本文件的实施旨在增强参加这个体系的 NCB 对遇到的各种零部件认可问题的共同理解，以及建立一个零部件符合 CB 报告所预期的适用的认可标准的最小证据。各 NCB 应清楚地表明本机构的要求与操作文件的差异，并在 CB 公告中和零部件认可矩阵表中公布。

零部件认可矩阵表（CAM）是零部件认可程序的一部分，它提供了各参与国标准等同 IEC 标准的程度的信息。这些数据可以使对零部件的要求更加透明，为国家认证机构和 CB 实验室在出具 CB 报告时提供帮助。

现在，IECEE 有两个程序来处理零部件在整机中的认可。这个操作文件描述零部件认可的“一般”途径。由各 NCB 准备的零部件认可声明是在“一般”途径下改善零部件认可的工具。

操作文件 CB2036 中描述了零部件认可计划（CRP）的特殊的认可过程，CRP 提供了相互接受没有 CB 证书的零部件实验报告的一种机制。CRP 推动关键零部件的相互接受，关键零部件评估依据 IEC 零部件标准（含/不含国家差异），或依据非协调的零部件国家标准。CRP 是在 CB 体系中零部件认可的途径之一。见 5.1.1.4 条。

1. 范围

本文件描述了在颁发和认可整机产品的 CB 测试报告和证书的过程中关于零部件的各种情况和决定。它同时提供了使用零部件认可矩阵表的要求和解释。

2. 定义

2.1 零部件

本文件中，对零部件定义如下：

零部件——由整机产品制造商在生产厂安装到整机产品中的零件或部件。例如器具开关、电容器、滤波器、熔断器座、内置电源、内置光驱或硬盘驱动器和类似装置。

capacitors, filters, fuseholders, build-in power supply, internal CD Rom or hard drive, and similar.

2.2 Harmonized standard

For the purpose of this document a harmonized standard issued by a national (e.g. DIN, ANSI, SCC, BSI) or regional (e.g. CENELEC) body has been defined as follows:
Harmonized standard –means a standard that is nationally recognized as a standard harmonized with IEC and for which there are published and readily available National or Regional Differences from the IEC requirements.

2.3 National standard technically equivalent to IEC standard

For the purpose of this document, the term "technically equivalent standard" means that even though the national standard is not officially declared as harmonized with the IEC requirements, all parameters have either the same or more stringent requirements as declared by the NCB (in cooperation with the Member Body, as applicable).
Note: Any national differences that need to be addresses for full compatibility of both standards are clearly identified by the NCB claiming technical equivalency of the national standard.

2.4 Component Acceptance Matrix (CAM)

CAM is a database containing compilation of IECEE component acceptance practices by the NCBs participating in the IECEE CB Scheme.

2.5 Certification documentation

For the purpose of this document, a certificate, a license, or similar evidence of certification are considered equivalent. See clause 7.1.

3. General Principles:

3.1 Components shall comply with the relevant requirements of the applicable component standards and the component requirements of the end-product standard.

3.2 NCBs in countries that have not yet harmonized their component standards with IEC standards are strongly recommended to develop procedures permitting the acceptance of tests based on IEC component standards or on national component standards of the accepting NCB. One of the options to address this situation is described in OD CB 2036.

3.3 It is recommended that evidence of on-going component compliance verification be used to facilitate the acceptance of components. In order to avoid further action for component, such as additional testing that could be derived from the Decision of Current Interest (1D 114), or from the quickly changing technology, evidence of the on-going component compliance verification can facilitate component acceptance. This evidence could be in the form of factory surveillance operating procedure.

2.2　协调标准

本文件中，由一个国家机构（如 DIN、ANSI、SCC、BSI）或区域机构（如 CENELEC）颁发的协调标准定义如下：

协调标准——由国家认可的一个与 IEC 标准协调的标准，其与 IEC 标准的国家或地区差异进行了公布并且易于得到。

2.3　技术等效 IEC 标准的国家标准

本文件中，术语“技术等效标准”意味着即使国家标准没有官方的声明与 IEC 的标准要求协调，所有的参数还是有相同或更严的要求。有关差异由 NCB（可与成员机构合作，适用时）来声明。

注：为使国家标准和 IEC 标准完全兼容，声明国家标准技术等效的 NCB 要明确任何国家差异。

2.4　零部件认可矩阵表（CAM）

CAM 是包含参与 IECEE CB 体系的各 NCB 对 IECEE 零部件认可的实际操作信息的数据库。

2.5　认证文件

本文件中：证书、许可证或类似的认证证明被认为是等同的。参见 7.1 条。

3. 通用原则

3.1　零部件必须遵守适用零部件标准的相关要求和整机产品标准中的零部件要求。

3.2　强烈建议还没有将其零部件标准与 IEC 标准相协调的 NCB 制定程序接受基于 IEC 零部件标准的测试或按照认可 NCB 所在国的零部件标准进行的测试。在 OD CB2036 中描述了处理这种情况的一种方式。

3.3　推荐使用验证零部件持续符合性的证据，为认可零部件提供便利。为避免对零部件进行进一步的额外工作，如从“关于当前问题的决定”的 1D 114 条款中引申出来的或者由于快速发展的技术导致的额外测试，提供零部件持续符合性验证的证据能够为认可零部件提供便利。这一证据可采用工厂监督运作程序的形式。

3.4 All component related differences in requirements and acceptance practices shall be declared by the NCBs (in cooperation with the Member Body) in the CB Bulletin and in the CAM.
Note: OD CB2036 covers rules for declaring technical differences for components in non-harmonized component standards.

3.5 The IECEE Secretary shall be informed of any problems relating to the application of this operational document (e.g. interpretation, no declaration, component certificate not accepted although satisfying to the rules...).

4. Potential situations for component requirements:

The following four cases can be identified:

4.1 There is an existing IEC standard for the component;

4.2 There is no IEC standard but there is a regional or national standard for the component;

4.3 No component requirements exists;

4.4 The end-product standard contains component requirements.

5. Component acceptance situations

The existence of an IEC standard for a component is the most desired situation, however, IEC standards do not exist for all components. The following outlines procedures for the acceptance of components for the situations identified above.

5.1 Existing IEC Component Standard

Two potential situations were identified as outlined in 5.1.1 and 5.1.2 below:

5.1.1 Component with CB Test Certificate

Where a component is provided with its own valid CB Test Certificate accompanied by the Test Report or information describing the conditions of component acceptability the following acceptance situations shall be considered:

5.1.1.1 No National Differences for component declared by the NCB

- Component shall be accepted by the receiving NCB without further evaluation if no additional component requirements are specified in the end-product standard, otherwise, see 5.1.1.3.

3.4 所有与零部件认可相关的要求以及操作方面的差异都应由 NCB（与成员机构合作）在 CB 公报和 CAM 中予以申报。

注：OD CB2036 包含了申报非协调零部件标准的零部件技术差异的规则。

3.5 关于本操作文件应用的任何问题（如文件的解释、未进行申报、零部件证书虽然符合规则却未被接受）均应通知 IECEE 秘书处。

4. 零部件要求的几种可能情况

可分为下列四种情况：

4.1 存在 IEC 零部件标准的；

4.2 没有 IEC 标准，但存在零部件的区域标准或国家标准的；

4.3 不存在零部件要求；

4.4 整机标准包含了零部件要求。

5. 零部件接受的情况

存在 IEC 零部件标准是最理想的情况，然而并不是所有零部件都有 IEC 标准。下面概括了上述几种情况的零部件接受程序。

5.1 存在 IEC 零部件标准

5.1.1 和 5.1.2 概述了两种可能的情况：

5.1.1 带有 CB 测试证书的零部件

当零部件提供了有效的 CB 测试证书及 CB 测试报告或描述零部件可接受情况的信息时，应考虑如下认可情况：

5.1.1.1 NCB 没有申明零部件的国家差异

－ 如果在整机产品标准中没有对于零部件的附加要求，接受方 NCB 应接受该零部件，不做进一步的评估。否则，参见 5.1.1.3。

5.1.1.2 Recognizing NCB has declared National Differences for component

5.1.1.2.1 National Differences have been addressed by an NCB

- Component shall be accepted by the receiving NCB without further evaluation if no additional component requirements are specified in the end-product standard, otherwise, see 5.1.1.3.

5.1.1.2.2 National Differences have not been addressed by an NCB

- Component shall be accepted by the receiving NCB after additional satisfactory evaluation to address the National Differences; see 5.1.1.3 to address additional component requirements specified in the end-product standard.

5.1.1.3 Additional component requirements specified in the national standard for the end product

5.1.1.3.1 Additional component requirements addressed by the issuing NCB

- Component shall be accepted by the receiving NCB if National Differences have been addressed (5.1.1.2).

5.1.1.3.2 Additional component requirements not covered by the issuing NCB

- Component shall be accepted by the receiving NCB after additional evaluation to address the additional component requirements.

5.1.1.4 The receiving NCB does not adhere to IEC component standard(s) referenced in the IEC end product standard

OD CB2036 may be used to address this situation. The following scenarios may exist:

5.1.1.4.1 The receiving NCB has a non-harmonized national component standard declared as a national difference.

- The NCB shall accept the Report to national standard issued by other NCBs according to the Component Recognition Program (OD CB2036) or, if not provided, conduct component testing according to national standard

5.1.1.4.2 The receiving NCB has a non-harmonized national component standard not declared as a national difference

- Component shall be accepted by the receiving NCB based on the available CB Test Report according to the IEC component standard

5.1.1.4.3 The receiving NCB has no national component standard

- Component shall be accepted by the receiving NCB based on the available CB Test Report according to the IEC component standard

5.1.1.2 认可 NCB 申明了零部件的国家差异

5.1.1.2.1 NCB 已经覆盖了国家差异

- 如果在整机产品标准中没有对于零部件的附加要求，接受方 NCB 应该接受该零部件，不做进一步的评估。否则，参见 5.1.1.3。

5.1.1.2.2 NCB 没有覆盖国家差异

- 对国家差异进行附加评估，结果合格后，接受方 NCB 应接受该零部件。对于整机产品标准中规定的零部件附加要求的处理，见 5.1.1.3 。

5.1.1.3 整机产品国家标准中规定了零部件附加要求

5.1.1.3.1 颁证 NCB 覆盖了附加零部件要求

- 如果已覆盖了国家差异（5.1.1.2），接受方 NCB 应接受零部件。

5.1.1.3.2 颁证 NCB 未覆盖附加零部件要求

- 进行附加评估并覆盖了附加零部件要求后，接受方 NCB 应接受零部件。

5.1.1.4 接受方 NCB 没有跟随在整机 IEC 标准中引用的 IEC 零部件标准

OD CB2036 可以用于处理这种情况。可能存在以下情况：

5.1.1.4.1 接受方 NCB 有一个非协调的零部件国家标准，并作为国家差异进行了申报

- 根据零部件认可计划（OD CB2036），NCB 应该接受由其他 NCB 依据国家标准出具的报告，或者如果对方没有提供报告，依据国家标准进行零部件测试。

5.1.1.4.2 接受方 NCB 有一个非协调的零部件国家标准，没有作为国家差异申报

- 如果按照 IEC 零部件标准出具了 CB 测试报告，接受方 NCB 应接受该零部件。

5.1.1.4.3 接受方 NCB 没有零部件的国家标准

- 如果按照 IEC 零部件标准出具了 CB 测试报告，接受方 NCB 应接受该零部件。

5.1.2 Component without a CB Test Certificate

Where a component is not provided with its own valid CB Test Certificate for compliance with a relevant component standard it shall be checked for correct application and use in accordance with its specified ratings. It shall be subjected to the applicable tests of the end-product standard, as part of the end product, and to the applicable tests of the component standard, under the conditions occurring in the end product. In order to ease the process of acceptance, the applicable tests from component standard shall be reported in the Test Report for the component and attached to the end -product CB Test Report. The following acceptance situations shall be considered:

5.1.2.1 No additional requirements for the component in the end-product standard

5.1.2.1.1 No National Differences declared for component

- Component shall be accepted by receiving NCB provided that component test report to IEC standard is available from the issuing NCB.

5.1.2.1.2 National Differences declared for component

- Component shall be accepted by receiving NCB provided that component test report to IEC standard is available from the issuing NCB and includes National Differences, otherwise
- Component shall be accepted by receiving NCB when information provided in the Report fulfills acceptance criteria declared by the receiving NCB in the CAM database, otherwise
- Component accepted by receiving NCB after additional evaluation addressing National Differences.

5.1.2.2 Additional requirements for component in the end-product standard

5.1.2.2.1 No National Differences declared

- Component shall be accepted by receiving NCB provided that component test report to IEC standard is available from the issuing NCB.

5.1.2.2.2. National Differences declared for component

Same as 5.1.2.1.2.

5.1.2.3 Component provided with a national certificate, which indicates that, the component was tested to a harmonized standard and it shows limitations and/or conditions of use.

- Component shall be accepted by receiving NCB provided that any additional requirements (i.e., National Differences, end-product requirements, applicable tests of the component standard, under the conditions occurring in the end product) have been addressed in the end-product report.

5.1.2 没有 CB 测试证书的零部件

若没有提供零部件符合相关零部件标准的有效 CB 测试证书，应对它的正确应用和规定额定值下的使用进行核查。该零部件应作为整机产品的一部分，经受适用的整机产品标准中的测试以及在整机使用条件下零部件标准中适用的测试。为了使认可过程更为方便，按零部件标准进行的有关测试应在零部件的测试报告中进行记录，并附在整机产品的 CB 测试报告中。应考虑下面的几种认可情况：

5.1.2.1 在整机产品标准中对零部件没有附加要求

5.1.2.1.1 未就零部件申报国家差异

- 如果颁证 NCB 提供按 IEC 标准出具的零部件测试报告，接受方 NCB 应接受零部件。

5.1.2.1.2 就零部件申报了国家差异

- 如果颁证 NCB 提供按 IEC 标准出具的零部件测试报告，并且包括了国家差异部分，接受方 NCB 应接受零部件。
- 当报告中的信息满足接受方 NCB 在 CAM 数据库中申报的接受准则时，接受方 NCB 应接受零部件。
- 否则，进行额外评估并覆盖国家差异后，接受方 NCB 应接受零部件。

5.1.2.2 在整机产品标准中对零部件有附加要求

5.1.2.2.1 未申报国家差异

- 如果颁证 NCB 提供按 IEC 标准出具的零部件测试报告，接受方 NCB 应接受零部件。

5.1.2.2.2 对零部件申报了国家差异

与 5.1.2.1.2 相同。

5.1.2.3 对零部件提供了国家证书，证书表明零部件按协调标准进行了测试，并显示了应用的限制和/或条件

- 如果整机产品报告中已覆盖了附加要求（即国家差异、整机产品要求、在整机使用条件下根据零部件标准进行的适合的测试），接受方 NCB 应接受零部件。

5.1.2.4 Component tested to the requirement of a non-harmonized standard

- Component accepted according to the procedure of OD 2036, when used, or
- Component may be accepted at the discretion of the receiving NCB.

5.1.2.5 Component tested to the component requirements in the end product only (not tested to the applicable component standard)

- Component accepted after additional evaluation to the applicable component requirements, where necessary.

5.1.2.6 The receiving NCB does not adhere to IEC component standard.

- See 5.1.1.4.

5.2 No existing IEC Component Standard

Potential situations identified for evaluation and acceptance of components in the end product in case no IEC standard for component is available. This situation is possible due to quickly changing technology.

It is not allowed to issue a CB Test Certificate for a component if there is no existing IEC component standard accepted for use in the IECEE CB Scheme. The test results for such component testing shall be included in the CB Test Report of the end product.

5.2.1 Receiving NCB has a national/regional component standard and has declared it in National Differences for the end-product standard.

- The receiving NCBs are strongly encouraged to accept component reports prepared by the issuing NCB when testing has been done to the their declared national/regional component standard(s). The competency of the Issuing Body's CBTL for testing to the Recognizing NCB's non-harmonized component standard is addressed in OD-CB2036.

5.2.2 Receiving NCB has no declared national component standard;

- Component shall be accepted by the receiving NCB when tested to the component requirements of the end-product standard under the conditions occurring in the end product.

6. Component Acceptance Matrix

The Database is general in nature and is intended for use with a variety of IEC standards. It is not meant as a substitute for the technical requirements in a particular standard (which may be more stringent) nor is it intended as a replacement for established practices for a particular product category.

5.1.2.4　按非协调标准的要求测试的零部件

－ 如果适用，按照 OD 2036 的程序接受零部件。

－ 是否接受零部件，接受方 NCB 有自由处理权。

5.1.2.5　仅按照整机产品中对零部件的要求进行了处理测试（没有按照适用的零部件标准进行测试）

－ 必要时，对零部件按照适用零部件要求进行额外评价后，接受零部件。

5.1.2.6　接受方 NCB 未跟随 IEC 零部件标准

－ 见 5.1.1.4。

5.2　不存在 IEC 零部件标准

在没有 IEC 零部件标准的情况下，对整机产品中的零部件进行评估和接受，要识别几种可能的情况。由于技术的快速更新，个别零部件不存在 IEC 零部件标准，这是有可能的。

如果没有 IECEE-CB 体系使用的 IEC 零部件标准，则不允许颁发该零部件的 CB 测试证书。对这类零部件测试的结果应包括在整机产品的 CB 测试报告中。

5.2.1　接受方 NCB 有国家/区域零部件标准，并且在整机产品标准中以国家差异的形式进行了申报

－ 当颁证 NCB 按照这些申报的国家/区域零部件标准进行了测试时，鼓励接受方 NCB 接受颁证 NCB 出具的零部件报告。颁证机构的 CBTL 依据认可 NCB 非协调零部件标准测试的能力在 OD-CB2036 中规定。

5.2.2　接受方 NCB 没有申报国家零部件标准

－ 当在整机产品使用条件下，按照整机产品标准中的零部件要求进行了测试时，接受方 NCB 应接受零部件。

6. 零部件认可矩阵表

数据库本质上是通用的，并且打算和各种 IEC 标准一起使用。这并不意味着它可以替代特定标准中的技术要求（可能更严格），或替代在特定产品类别中已建立的实际操作。

The primary purpose of the Component Acceptance Matrix is to create widest possible acceptance of CB Test Reports, whilst maintaining a reasonable minimum standard for evidence of components' conformity to declared standards. See Clause 7.

Detailed information on technical requirements for member countries, as well as, NCB adherence to IEC standards and scope of participation are contained in the CB Bulletin and on the IECEE website.

6.1 Responsibilities of the NCBs

Each NCB shall provide the IECEE Secretariat with component information for the CAM database, updated annually (CMC Decision 13/05).

A declaration (using Appendix 1 to this OD) shall be prepared by each NCB showing its requirements for acceptance of components ("proof of compliance") that is required to be in CB Test Reports.

It is the NCB's obligation to report to IECEE any significant changes in their component acceptance policy without waiting for IECEE Secretariat annual reminder.

It is each NCB's obligation to report to IECEE any significant changes in its component acceptance policy without waiting for IECEE Secretariat annual survey.

6.2 Responsibilities of the IECEE Secretariat

The IECEE Secretariat sends to all NCBs a spreadsheet (based on Appendix 1) for initial compilation. After the initial submission, on annual basis, the Secretariat sends to each NCB the previously completed spreadsheet for verification and update.

The IECEE Secretariat is responsible for updating the CAM database based on the input received from NCBs.

6.3 CAM Database details

The blank form based on Appendix is used to declare Component Acceptance practices by the NCBs. The following explains the contents and the abbreviations used in that form.

6.3.1 The title of each page in the spreadsheet sent by the Secretariat is the name of the component.

6.3.2 The following columns and their title are in the spreadsheet:

- Column 1 —— the name of submitting NCB
- Column 2 —— the IEC standard for component
- Column 3 —— the national standard for component

零部件认可矩阵表的主要目的是让 CB 测试报告得到最广泛的认可，并同时保持证据方面合理的最低要求，确保零部件符合已申报的标准。参见条款 7。

成员国家技术要求的详细信息以及 NCB 采用 IEC 标准和参与的范围都包含在 CB 公报和 IECEE 网站中。

6.1 NCB 的职责

各 NCB 应该向 IECEE 秘书处提供关于 CAM 数据库的零部件信息，每年更新（CMC 决议 13/05）。

声明（使用本 OD 文件的附录 1）应由各 NCB 准备，以表明在 CB 测试报告中必要的零部件的接受要求（“符合性证明”）。

各 NCB 有义务向 IECEE 报告关于零部件认可政策的任何重大变化，而不能等到 IECEE 秘书处的每年提醒。

各 NCB 有义务向 IECEE 报告关于零部件认可政策的任何重大变化，而不能等到 IECEE 秘书处的每年调查。

6.2 IECEE 秘书处的职责

IECEE 秘书处发给所有 NCB 电子表格（基于附录 1）用于首次信息提供。在首次提交后，每年秘书处发给每个 NCB 以前完成的表格，以确认和升级。

IECEE 秘书处有责任以从 NCB 收到的输入信息为基础来更新 CAM 数据库。

6.3 CAM 数据库详细资料

基于附录的空白格式是用于各 NCB 声明零部件接受的实际操作。下面解释该格式中的内容和缩写。

6.3.1 由秘书处发送的电子表格的每一页的标题是零部件的名称。

6.3.2 在电子表格中有下列栏目及其标题：

- 列 1——提交 NCB 的名称
- 列 2——零部件的 IEC 标准
- 列 3——零部件的国家标准

- Column 4 – Level of National harmonization,
  where the following letter codes are used:

IEC	= country is using IEC standard
NSFH	= country is using IEC standard but has assigned its own number
NSHD	= National standard is harmonized with declared National Differences
NSTE	= National standard is technically equivalent
NSNH	= National standard is harmonized and not technically equivalent

- Column 5 – under the title "Minimum requirements"

  If marked, it means that the NCB will only accept a component if CB Test Certificate and Report are provided with the end product CB Test Report.

- Column 6 – under the title "Minimum requirement"

  If marked, it means that the NCB will accept a component that has a National Certification with Test Report (any, unless otherwise stated under comments) and proof of National Certification is provided with the end product CB Test Report, where National Certification means component complying with the standard(s) listed in column 3.

- Column 7 – under the title "Minimum requirement"

  If marked, it means that the NCB will accept a component if proof of National Certification (any, unless otherwise stated under comments) is provided with the end product CB Test Report, where National Certification means component complying with the standard(s) listed in column 3.

- Column 8 – under the title "Minimum requirement"

  If marked, it means that there is a Mark on the component from any NCB participating in the CB Scheme and component was tested to national standard as listed in column 3.

  Note 1: Selecting column 8 also means that the NCB has means to confirm the validity of the Mark. Any conditions for this choice should be stated in the comments column.

  Note 2: Acceptance of components based only on the fact that a National Mark can be found on that component may not be enough and it is less then the minimum expected proof of component compliance stated in clause 6.5.

- Column 9 – under the title "Minimum requirement"

  If marked, it means that the NCB will accept a component based only on Test Report when prepared by a NCB/CBTL approved for participation for that standard

一 列 4——国家标准的协调程序

使用下列字符和代码：

IEC　　=国家使用 IEC 标准

NSFH　　=国家使用 IEC 标准，但是有自己分派的标准编号

NSHD　　=国家标准是协调标准，带有已声明的国家差异

NSTE　　=国家标准是技术等效的

NSNH　　=国家标准是非协调标准，技术上不等效

一 列 5——在“最低要求”标题下

如果标注，它表明 NCB 只接受与最终产品的 CB 测试报告一起提供的带有 CB 测试证书和报告的零部件。

一 列 6——在“最低要求”标题下

如果标注，它表明 NCB 将接受与最终产品的 CB 测试报告一起提供的带有测试报告（任何报告，除非在注释下另做说明）的国家认证及其证明文件的零部件。在这里，国家认证意味着零部件符合在列 3 中列出的标准。

一 列 7——在“最低要求”标题下

如果标注，它表明 NCB 将接受与最终产品的 CB 测试报告一起提供的带有国家认证（任何认证，除非在注释下另做说明）证明的零部件。在这里，国家认证意味着零部件符合在列 3 中列出的标准。

一 列 8——在“最低要求”标题下

如果标注，它表明零部件带有一个来自任何参与 CB 体系的 NCB 颁发的标志，零部件依据在列 3 中列出的国家标准进行了测试。

注 1：选择列 8 同时表明 NCB 有办法确认标志的有效性。对于这个选择的任何情况应在注释栏中陈述。

注 2：零部件的接受仅基于可以在零部件上找到国家标志是不够的，除此之外还有在 6.5 条中说明的零部件符合性的最小证明。

一 列 9——在“最低要求”标题下

如果标注，它表明 NCB 将仅接受由参与该标准（IEC 或非协调的）的并且被允许依据零部件认可计划（OD CB2036）出具报告的 NCB/CBTL 准备的测试报告。

(IEC or non-harmonized) and allowed to issue Reports according to Component Recognition Program (OD CB 2036).

- Column 10 – Factory Inspection Requirements

  This column is used to indicate requirements for initial acceptance and on-going compliance (See also clause 6.4)

- Column 11 – Reserved for comments and clarifications

6.4 Additional Rules for completing the Component Acceptance Matrix

6.4.1 The NCB may select as many choices as acceptable by that NCB for component acceptance. The selected choices may be different for each component.
The column called "Comments" should be used to explain choices marked in columns from 5 to 10. (The selected choices can be inclusive or exclusive. The NCB should state if the selected options are "or" or "and").

6.4.2 If the NCB requires Factory Inspections for components, then column 10 should be marked appropriately. In the column for comments, the NCB should provide answers to the following questions:

- Does the NCB accept Factory Inspections done by others?
- If yes, who can perform the factory inspection?
- What type of inspection is required, product based, quality based or combination?
- How often the Factory Inspection is required for components?
- Is there any on-going retesting required?

7. Component information in the CB Test Reports

A Critical Component Table in CB Test Reports shall be completed according to OD CB 2020 Part 3.

7.1 Proof of component compliance

The minimum expected proof of component compliance with component standard(s) is a copy of certification documentation according to the definition in clause 2.5 of this proposed Component Acceptance Operational Document.

Note 1: This documentation shall contain, as a minimum, a model number, manufacturer's name, standard used including edition and any limitation or restrictions on component use, if any.

Note 2: Due to different systems at each NCB, the expected proof of component compliance with the requirements may be different, however, any additional requirements on top of a valid component license must be declared by each NCB in the Component Acceptance Matrix Database.

－ 列 10——工厂检查要求

这列表示首次接受和持续符合的要求（也见 6.4 条）。

－ 列 11——注释和说明

6.4 完成零部件接受矩阵表的附加要求

6.4.1 对于零部件的认可，NCB 可以选择可接受的多种方案。对于不同的零部件，选择的方案可能不同。

“注释”列应用于解释 5 到 10 列中选择的方案（选择的方案可以是一种或多种。NCB 应说明选择的方案之间是“或”或者是“和”的关系）。

6.4.2 如果 NCB 需要零部件的工厂检查，列 10 应被适当的标注。在注释栏，NCB 应提供下列问题的答案：

－ NCB 是否接受由其他机构完成的工厂检查？

－ 如果是，谁可以执行工厂检查？

－ 需要什么形式的工厂检查，以产品为基础、质量体系为基础，或者两者结合？

－ 对于零部件需要的工厂检查频次？

－ 有无重新测试的要求？

7. 在 CB 测试报告中的零部件信息

CB 测试报告中的关键件清单应该依据 OD CB2020 第 3 部分的要求完成。

7.1 零部件符合性的证明

根据本零部件认可操作文件的第 2.5 条定义，预期的零部件符合零部件标准的证明至少应是认证文件的复印件。

注 1：这个文件至少应该包括型号、制造商名称、使用的标准（包括版本）和在零部件使用上的任何限制（如果有）。

注 2：由于各 NCB 体系不同，预期的零部件符合要求的证明可能不同，但是任何超出有效零部件许可证的附加要求必须由各 NCB 在零部件认可矩阵数据库中声明。

Note 3: The column in the Critical Component Table called "Evidence of conformity" is used to identify/describe proof of component's compliance with the requirements used by Issuing Body during the end product investigation.

Note 4: When providing product description in the CB Test Report special emphasis should be placed on explaining the role of specific components in the end product to assist Recognizing Bodies with identification of truly safety critical components in the end product. This is especially important to those NCB that "waive" sample requirements.

注 3：在关键件零部件清单中被称作“符合性证明”的该栏用于颁证机构在核查最终产品时确定/描述零部件符合要求的证明。

注 4：在 CB 测试报告中提供产品描述时应重点解释特定的零部件在整机中的作用，以协助认可机构确认安全关键件在整机中的真实情况。这对那些“放弃”送样要求的 NCB 尤为重要。

Appendix 1

Example of a blank Component Acceptance Matrix Page

NCB	IEC Standard	National Standard	Level Harmonization	CB Cert & TR	National License & TR	National License w/o TR	National Mark only	Test Report Only	Factory Inspection		Comments
1	2	3	4	5	6	7	8	9	10		11
									Initial	On-going	
Component Name											
Component Name											

Example of Component Acceptance Matrix Page for Appliance inlet/outlet

NCB	IEC Standard	National Standard	Level Harmonization	CB Cert & TR	National License & TR	National License w/o TR	National Mark only	Test Report Only	Factory Inspection		Comments
1	2	3	4	5	6	7	8	9	10		11
									Initial	On-going	
Appliance Inlet/Outlet											
	IEC60309, IEC60320										

IEC-IECEE 2007

附件 1

空白零部件认可矩阵页的实例

NCB	IEC标准	国家标准	协调程序	CB证书和报告	国家许可和报告	国家许可不带报告	只有国家标志	只有测试报告	工厂审查		注释
1	2	3	4	5	6	7	8	9	10		11
									首次	持续	
零部件名称											
零部件名称											

器具输入/输出插座零部件认可矩阵页的实例

NCB	IEC标准	国家标准	协调程序	CB证书和报告	国家许可和报告	国家许可不带报告	只有国家标志	只有测试报告	工厂审查		注释
1	2	3	4	5	6	7	8	9	10		11
									首次	持续	
器具输入/输出插座											
	IEC60309 IEC60320										

16. TRF – Development, maintenance and use

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Worldwide System for Conformity Testing and Certification of Electrical Equipment and Components (IECEE)

TRF - Development, maintenance and use

This TRF Manual has been prepared by the IECEE CMC TRF Working Group and approved by the Certification Management Committee (CMC) of the IECEE

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TRF——编制、维护和使用

本 TRF 手册由 IECEE CMC TRF 工作小组编制并由 IECEE 认证管理委员会（CMC）批准。

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Part 1
General introduction to the TRF procedures

1.1 Scope

This Operational Document (OD) addresses various stages of Test Report Form (TRF) development, distribution, maintenances and use. It also includes various examples to illustrate the requirements.

1.2 Purpose

For the most part, this OD has been prepared to address the needs of TRF originators, TRF users and TRF administrators. The purpose of this OD is to guide all parties involved in the TRF procedures and to address the certification, data exchange and other IECEE community needs, as appropriate.

1.3 Definitions

Test Report Form (TRF) – A blank form prepared by the TRF originator according to Part 3 of OD CB 2020 and published according to Annexes G and H of this Operational Document.

TRF Originator – An NCB appointed by IECEE to develop a specific Test Report Form.

CB Test Report – A filled out Test Report Form (TRF), containing results of product investigation, measured test data and attachments per the list of attachments referring to supporting documents. (See Annex E for instructions).

1.4 Structure of OD CB 2020

The OD consists of six Parts and ten Annexes, which compliment each other and together describe the complete TRF process. Individual Parts may be used to serve a specific purpose, for example, Parts 4 and 5 address the needs of CB Test Report compilers.

第一部分
TRF 规程简介

1.1 范围

本操作文件（OD 文件）对测试报告格式（TRF）编制、发放、维护和使用的不同阶段进行了描述。同时还通过举例来阐述各种要求。

1.2 用途

本 OD 文件的大部分内容是用来满足 TRF 起草人、TRF 使用者和 TRF 管理者的需要。此 OD 文件用来指导 TRF 规程中涉及的所有相关机构，并根据情况处理认证、数据交换和 IECEE 机构的其他需要。

1.3 定义

测试报告格式（TRF）—由 TRF 起草人根据 OD CB 2020 第三部分制作并且根据本操作文件附录 G 和附录 H 发行的一份空白格式。

TRF 起草人—由 IECEE 指定来制作一份特定测试报告格式的 NCB。

CB 测试报告——一份填写完整的测试报告格式（TRF），包括产品评价的结果、测试数据和依据支撑文件目录准备（见附录 E—说明）的附录。

1.4 OD CB 2020 的结构

本 OD 文件由 6 个部分和 10 个附录组成，它们之间相辅相成，一起来描述整个 TRF 过程。每个部分用来实现其具体的目的，比如第 4 部分和第 5 部分用来描述 CB 测试报告编写者的要求。

Part 2

Assignment and distribution process

2.1 Request for a TRF

The request for a TRF is basically made by an IECEE member, which has presumably received an application for testing and certification of product(s) falling under a determined standard. The request shall be addressed to the IECEE Secretariat in writing to the following email address: **sap@iec.ch**
Upon receipt, the IECEE Secretariat checks whether the requested TRF is:

- Already available;
- Available but requiring updates;
- In process of being originated/updated by an assigned IECEE member;
- Not available.

2.1.1 If the requested TRF is already available or in process of being originated/updated, the requesting IECEE member is notified by the Secretariat.

2.1.2 If TRF is not available or an update is needed but not available:

a) In case the requested TRF is an update and has been previously assigned to or prepared by other member, the IECEE Secretariat will consult with that member prior to making any additional inquires among participating NCBs.

b) In case the originator is not able to update the TRF within a defined time frame, or there is no assigned originator for the TRF, the requesting IECEE member will be asked to originate the relevant TRF. However, as a pre-condition, the requesting member must have been accepted to issue CB Test Certificates based on the relevant IEC standard.

c) If the requesting member is not prepared to develop the TRF, the IECEE Secretariat immediately starts a formal consultation among other members seeking an NCB willing to originate the missing TRF.

Note: It is assumed that the NCB, which has got the application for certification purpose, will undertake the responsibility of originating the TRF, should the consultation made by the IECEE Secretariat among the IECEE members lead to a no-offer. In case no originator can be found, the requesting member is expected to drop the TRF request.

2.2 Appointment of TRF Originator

The IECEE Secretariat will formally appoint an IECEE member as a TRF Originator according to a), b) or c) above, as appropriate.

The originator will develop the assigned TRF following the requirements in Part 3.

2.3 TRF Distribution of new and modified TRFs

Once the appointed originator completed the TRF, the originator forwards the relevant TRF in MS Word format to the IECEE Secretariat via email. See Annex H.

The TRF originator shall advise the IECEE Secretariat whether the TRF should be distributed via regular or via simplified procedure (See Annex G and clause 6.3 for details).

第二部分
委派及发布程序

2.1 申请 TRF

基本上，对 TRF 的申请都是由已接收到根据某个特定标准进行产品测试和认证申请的 IECEE 成员机构提出的。这些申请必须以书面形式通过电子邮件（sap@iec.ch）发送到 IECEE 秘书处，IECEE 秘书处收到之后，核查申请的 TRF 是否：

—已存在；

—已存在，但需要更新；

—正处于委派的 IECEE 成员编制/更新过程中；

—还不存在。

2.1.1 如果申请的 TRF 已经存在或正在起草/更新中，发出请求的 IECEE 成员将会接到秘书处的通知。

2.1.2 如果 TRF 不存在或需要更新但还没有做：

a）如果该 TRF 为更新版本并且曾委派给其他成员编制，那么 IECEE 秘书处在对其他 NCB 提出任何进一步征询之前，应先与该成员进行协商。

b）如果该起草人在规定时间内不能完成该 TRF 的更新，或没有为该 TRF 指派起草人，则可以由提出申请的 IECEE 成员承担起草相关 TRF。然而作为前提条件，该机构必须已获得颁发基于相关 IEC 标准的 CB 测试证书的资格。

c）如果提出 TRF 申请的 IECEE 成员不准备编制 TRF，则 IECEE 秘书处应立即与其他 NCB 正式协商并寻求自愿编制该 TRF 的 NCB。

注：如果经过 IECEE 秘书处的征询没有成员愿意起草，那么收到认证申请的 NCB 应承担起草该 TRF 的责任。如果没有找到任何起草人，申请者只能放弃该要求。

2.2 指派 TRF 起草人

IECEE 秘书处会根据上述 a）、b）或 c）来正式任命一个 IECEE 成员作为 TRF 的起草人。

起草人将根据第三部分的要求来制作指派的 TRF。

2.3 新的 TRF 和修订的 TRF 发行

一旦指派的起草人完成 TRF 编制任务后，起草人要通过电子邮件将相关 TRF 以微软 word 格式发送到 IECEE 秘书处。见附录 H。

TRF 起草人还应告诉 IECEE 秘书处，该 TRF 应按常规程序发行还是按简化程序发行（详见附录 G 和第 6.3 章）。

2.4 TRF Trial and Comment Period

New TRFs that are not distributed via simplified procedure can be used on a trial bases for three to six months. IECEE distributes the TRF to members and publishes on the IECEE Website as a provisional TRF.
During the trial and comment period, users are expected to provide feedback to the IECEE Secretariat (See Part 6). IECEE Secretariat informs the TRF originator about the findings and requests that comments be addressed, when appropriate.

For new or updated TRFs, the IECEE Secretariat will verify the correct Test Report Reference Number, layout, editing, etc prior to publishing the TRF in the relevant areas of both, the IECEE Web Site for the members and the IEC Web Store for outsiders, or return to the originator for corrections.

The IECEE Secretariat informs the IECEE members about the publication through e-mails each time a new TRF(s) are posted on the IECEE Web Site and IEC Web Store.

Part 6 of this OD describes the process addressing users' requests for modifications to the content of a TRF, as well as, administrative changes.
Annexes G and H describe the procedure for TRF modification requests and distribution.

2.5 Simplified procedure for TRF distribution

The simplified procedure for TRF distribution is described in Clause 6.4 and in Annex G.

2.4 TRF 试用和评论阶段

不按照简化程序发布的新 TRF 可以试用 3～6 个月。IECEE 将该 TRF 发放给各个成员，并作为临时性 TRF 在 IECEE 网上公布。在试用和评论阶段，IECEE 希望用户将意见反馈给 IECEE 秘书处（见第六部分）。由 IECEE 秘书处适时将发现的问题和提出的要求转达给 TRF 的原起草人。

对于新的或更新的 TRF，IECEE 秘书处在 IECEE 网站上为成员及在 IEC 网上商店为外界人士发布 TRF 前，会确认测试报告的正确编号、格式、编辑内容等，或将待修改的报告返回至原起草人。

每次有新的 TRF 在 IECEE 网站和 IEC 网上商店公布时，IECEE 秘书处会通过电子邮件告知各 IECEE 成员。

本文的第六部分描述了使用者要求修改 TRF 内容的请求过程以及管理变更。附录 G 和附录 H 描述了 TRF 的修订和发行的程序。

2.5 TRF 发行的简化程序

TRF 简化程序的发行见第 6.4 章和附录 G 的描述。

Worldwide System for Conformity Testing and Certification of Electrical Equipment and Components (IECEE)

Part 3
Guidelines on how to prepare new TRFs

3.1 General rules

The originator shall always use the latest TRF template available on the IECEE Website. (http://www.iecee.org/cbscheme/html/cbtrep.htm). This applies to the TRF itself and to the National Differences TRFs.

3.1.1 As a basic rule, one TRF covering IEC requirements shall be developed. For the EN standard an EN Annex covering EN Differences shall be attached to the IEC TRF. If a separate TRF according to the EN standard is necessary due to a considerable number of EN Differences, this shall be agreed with the IECEE Secretariat.

3.1.2 The EN Annexes and in specific situations, EN TRFs respectively, shall be prepared by the originator located within EU countries, which might result in a different originator for the IEC Test Report Form and for the Annex with EN Differences.
The originator shall always use the latest EN Differences and National Differences templates available from the IECEE Website.

3.1.3 In general, a separate TRF shall be prepared for Part 1 and for each Part 2 standard. However, the originators may choose to prepare a TRF for a combined Part 1 and one or more Part 2 standards (Example: IEC 60335 and IEC 60598 Series). For uniformity of all TRFs in a particular series of standards, the originator shall always start with the approved Part 1 TRF, when available, and incorporate into it Part 2 requirements (See Clause 3.7.3).

3.2 Formatting requirements

The following formatting and identification instructions shall be taken into account when preparing new or modifying old test report forms (TRF):

File format: MS Word format "97-2002 + 6.0/95 - RTF" or "97-2003 + 6.0/95 - RTF"

Font: Normal text: Arial 10 pt (True Type)
Special characters (e.g. °, Δ): Symbol (True Type)

Paper size: A4 (210 x 297 mm)

Margins: Top 2 cm, Bottom 2 cm, Left 3 cm, Right 1 cm (standard margins)
Optional: Left 2 cm, Right 2 cm (CBTL using double sided printing may modify the margins)

Language: English (UK)

3.3 Identification of the IEC Standard, TRF number and Master TRF

The TRF standard shall be identified on the front page as follows:
Standard: **IEC 6xxxx - x-xx: YEAR (xx Edition)**

For Part 2 TRF the above shall be followed by the reference to the correct Part 1.

Examples:
- IEC 60601-2-2:2006 (Fourth Ed.) for use in conjunction with IEC 60601-1 (1988), Amts 1 (1991) and 2 (1995)
- IEC 60601-2-22: 2007 (Third Ed.) for use in conjunction with IEC 60601-1: 2005 (Third Edition)
- IEC 60335-2-4:2002 (5th Ed.) and IEC 60335-2-7:2002 (6th Ed.) for use in conjunction with IEC 60335-1:2001 +A1:2004

第三部分
编制新 TRF 的指南

3.1　通用规则

起草人应使用 IECEE 网站上的最新 TRF 模板（http：//www.iecee.org/cbscheme/html/cbtrep.htm），该模板适用于 TRF 本身以及国家差异的 TRF。

3.1.1　作为一个基本原则，一份 TRF 应使用 IEC 标准来制作。对于 EN 标准，可以使用包括 EN 标准的差异的 EN 附录来作为 IEC TRF 的附录。如果考虑到 EN 差异的数量需要根据 EN 标准来制定单独的 TRF，应得到 IECEE 秘书处的同意。

3.1.2　EN 附录和特殊条件下的 EN TRF 应由 EU 成员国起草人进行编制，这可能会导致 IEC 测试报告格式与 EN 差异的附录有不同的起草人。起草人应使用 IECEE 网站上获得的最新版 EN 差异和国家差异模版。

3.1.3　一般情况，标准的第一部分和第二部分的每个标准应独立编制 TRF。然而，起草人也可另外编制一份 TRF 将第一部分与一个或多个第二部分结合在一起（例如：IEC 60335 或 IEC 60598 系列）。为了使系列标准中所有的 TRF 一致，如果可能的话，起草人应首先使用被批准的第一部分的 TRF，再将第二部分的要求纳入（见 3.7.3 章节）。

3.2　格式要求

当制作一个新的或修改一个旧的测试报告格式（TRF）时，应考虑下列格式和标识说明。

文件格式	MS Word format“97－2002 ＋ 6.0/95 － RTF”或 “97－2003 ＋ 6.0/95 － RTF”
字体	正文：Arial 10 pt（True Type） 特殊字符（e.g.°，△）：Symbol（True Type）
纸张尺寸	A4（210 ×297 mm）
页边距	顶部 2 cm，底部 2 cm，左边 3 cm，右边 1 cm
语言	英语（UK）

3.3　IEC 标准的标识，TRF 编号和 TRF 母版

TRF 标准应按如下所示标识在首页：

标准：IEC 6xxxx － x－xx：年代（xx 版本）

对第二部分的 TRF，上述标准标识还应伴有相应的第一部分标准版本。

示例：

• IEC 60601－2－2：2006（Fourth Ed.）与 IEC 60601－1（1988），Amts 1（1991）and 2（1995）配套使用

• IEC 60601－2－22：2007（Third Ed.）与 IEC 60601－1：2005（Third Edition）配套使用

• IEC 60335－2－4：2002（5th Ed.）and IEC 60335－2－7：2002（6th Ed.）与 IEC 60335－1：2001 ＋A1：2004 配套使用

Test Report Form Number:
The TRF Number providing reference to the IEC standard shall be identified on the front page. A letter code shall be added to the number to identify the TRF version.

The format of the TRF identification shall include the following elements:
IEC6xxxx_x_xxx followed by suffix letter

Examples:
• IEC60950_1F: means a TRF for IEC 60950-1, TRF version "F"
• IEC60601_2_22C: means a TRF for IEC 60601-2-22, TRF version "C"
• IEC60335_2_4&7D: means a TRF for IEC 60 335-2-4 and IEC 60 335-2-7, TRF version "D"
• IEC60335_2_23B_delta: means a TRF for IEC 60 335-2-23 covering differences between version "A" and version "B" (See Clause 3.7.1).
• IEC60950_1&IEC60601_1A: means a TRF covering two different standards IEC 60950-1 and IEC 60601-1, TRF version "A" (see Clause 3.7.2).
• EU_GD_IEC60335_2_14F means a TRF covering European Group Differences for IEC60335-2-14 version "F" (see Clause 3.4.5)
• US_ND_IEC60065_7th.ed.am.1 means a TRF covering US National Differences for IEC60065, 7th ed. with am.1 (see Clause 3.4.5)
• MY_ND_IEC60065_7th.ed means a TRF covering Malaysian National Differences for IEC60065 TRF, 7th ed.

Note: The suffix letter in the TRF identification number is reserved for a version and is added by the TRF Originator. (In case of doube, the IECEE Secretariat acting as the TRF Administrator will verify the correctness of the TRF number).

Master TRF: The date of Master TRF shall be the date of TRF publication. See also Clause 6.3.7.

3.4 TRF structure

A Test Report Form must be easy to fill in and shall not include macros, except for the Test Report Number and the page numbers. Check boxes may be used as allowed by the TRF template. The originator may add protected fields but only if necessary. See instructions in Annex A.

A blank Test Report consists of four sections as specified below. The Testing Laboratory always completes the first four sections including the critical components (section four). (See Annex E).
If National Differences are included during product investigation (see clause 3.4.4) then an attachment covering National Differences shall also be completed.

3.4.1 General information section (Section 1 of the TRF)

The first section is a cover page – applicable to all Test Reports - that contains the general information, such as names and addresses of Testing Laboratory and Applicant/Client, Report reference number, standard used, TRF number, product name and product rating, trademark and other information.
An example of the first page of TRF is shown in Annex C.

Pages that follow the cover page (normally three or more pages) contain specific information related to testing procedure and testing locations, list of attachments, product under testing, investigated National Differences, general tests and samples information.
An example of information pages can be found in Annex C.

测试报告编号

在第一页及每一页的页脚处都标注了能够体现 IEC 标准号的 TRF 编号。除此之外，也可添加其他字母用以标识 TRF 版本。

TRF 标识的格式应包含下列元素：

IEC 6xxxx _ x _ xxx 加后缀字符

示例：

IEC 60950 _ 1F：代表 IEC 60950－1，TRF 版本“F”。

IEC 60601 _ 2 _ 22C：代表 IEC 60601－2－22，TRF 版本“C”。

IEC 60335 _ 2 _ 4&7D：代表 IEC 60 335－2－4 和 IEC 60 335－2－7，TRF 版本“D”。

IEC 60335 _ 2 _ 23B _ delta：代表 IEC 60 335－2－23，TRF 版本“A”和版本“B”之间的差异（见 3.7.1 章节）。

IEC 60950 _ 1&IEC60601 _ 1A：代表包含 IEC 60950－1 和 IEC 60601－1 两个不同标准，TRF 版本“A”（见 3.7.2 章节）。

EU _ GD _ IEC 60335 _ 2 _ 14F：代表 IEC 60335－2－14 欧洲集团差异的 TRF 格式，版本“F”（见 3.4.5 章节）。

US _ ND _ IEC 60065 _ 7th. ed. am. 1：代表 IEC 60065，第 7 版及修正件 1 美国国家差异的 TRF 格式（见 3.4.5 章节）。

MY _ ND _ IEC 60065 _ 7th. ed：代表 IEC 60065，第 7 版马来西亚国家差异的 TRF 格式。

注： 后缀字符的位置应保留由 TRF 起草人添加版本号（如有疑问，应由 IECEE 秘书处作为 TRF 管理员对 TRF 编号进行确认）。

TRF 母版：TRF 母版的日期应是 TRF 发行的日期。见 6.3.7 章节。

3.4 TRF 结构

TRF 应便于填写，除了测试报告编号和页码外不应采用宏指令。复选框应使用 TRF 的模板。若需要，使用者可添加保护域，参见附录 A 中的相关说明。

一份空白的测试报告应包含以下 4 个部分。测试实验室通常完成前四部分，其中包括零部件的安全件清单（第四部分，见附录 E）。如果产品测试过程中包含国家差异（见此章 3.4.4 节），则应完成对应的国家差异的附录内容。

3.4.1 基本信息部分（TRF 的第一部分）

第一部分为封面－适用所有测试报告，其内容包含基本信息，如测试实验室以及申请人/客户的名称和地址、报告编号、采用的标准、TRF 编号、产品名称及额定值以及商标等其他信息。附录 C 是已完成的第一页内容示例。

封面后的几页（通常三页或以上）包含一些具体信息，涉及测试程序、测试地点、附录清单、测试样品、国家差异及常规测试信息。附录 C 中含有该信息页的示例。

3.4.2 Compliance checklist (Section 2 of the TRF)

This section of the TRF is a standardized section consisting of a checklist, referencing clause by clause the requirements of a particular IEC standard.
Note 1: Sub-clauses that are explanatory notes do not need to be detailed in the checklist.

The compliance checklist section is formatted into 4 columns. For practical reasons each column heading (below) appears as a table heading on each page of this section, e.g. the whole section may be one table and the table heading is repeated at the beginning of each page. When this is not practical, the table may be split into several smaller tables, however, **the headers are repeated on each page.**

Cl.	Requirement - Test	Result	Verdict

In order to fully utilize the available space on each page, the typical width of each cell in the test case section shall be as follows: 2 cm, 8.3 cm, 5 cm and 1.6 cm. (Note: A4 page width is 21 cm, margins 4 cm and about 0.1 is left for lines width).

Cl./Clause**:** a reference to the standard's clause or sub-clause

Note 2: Identical clause numbers of subsequent test cases are not repeated (printed) in the compliance checklist table.

Requirement – Test: a summary of the requirement and/or an abbreviated description of a test.

Different test case types may be presented in one of the following ways (each type is followed by an example).

3.4.2.1 Test case types

Heading

Cl.	Requirement - Test	Result	Verdict
30	CONSTRUCTION		

Sub-heading

Cl.	Requirement - Test	Result	Verdict
10.5	Markings for Class II appliances		Pass

Regular test case

Cl.	Requirement - Test	Result	Verdict
21.1.1	Marking on main part		Pass

When regular test case requires a specific result or comment in addition to the verdict, it needs to be identified by a dotted leader as in the example below:

3.4.2 符合性检查表（TRF 的第二部分）

TRF 的该部分为包含测试栏目的标准格式，以条款的形式注明了特定 IEC 标准的要求。

注 1：解释性注释的分条款无需在检查表中详细列出。

符合性检查表部分划为四列。实际应用中，每一列的标题（如下）可作为该部分表格的标题，例：当整个部分只包括一张表，在每一页的开头都重复出现该表头标题。若不适用，可将表格划分为几个较小的表格，**但每一页上仍应重复出现标题内容。**

Cl	Requirement-Test	Result	Verdict

为了充分利用每页的空间，测试部分每格的宽度通常如下：2cm，8.3cm，5cm 和 1.6cm（注：A4 纸宽度为 21cm，边距空白为 4cm，线宽应保留 0.1cm）。

条款 Cl./Clause：引用标准条款及分条款

注 2：如果测试情况所依据的条款号相同，则无需在检查表中重复（打印）该条款号。

Requirement-Test：测试要求的摘要和/或对测试过程的简略描述。

不同的测试类型可以用下面的方式表示（每种类型后附示例）。

3.4.2.1 测试类型

Heading（主标题）

Cl.	Requirement-Test	Result	Verdict
30	CONSTRUCTION		

Sub-heading（分标题）

Cl.	Requirement-Test	Result	Verdict
10.5	Markings for Class II appliances		Pass

Regular test case（常规测试）

Cl.	Requirement-Test	Result	Verdict
21.1.1	Marking on main part		Pass

当常规测试中除判定外还要求具体的测试结果或评价，则应采用下例中的虚引线形式。

Cl.	Requirement - Test	Result	Verdict
20.5	**Length ≥ 10 m ....:**	12,5	Pass

Auxiliary test case, not requiring a verdict but additional information only, needs to be identified by a shaded verdict field (shading is12.5% gray):

Cl.	Requirement - Test	Result	Verdict
3.2.1	**Test temperature (°C).............................:**	23,5	—

3.4.2.2. Results and verdicts

Result: Any information that results from column 2, such as a measured value, a remark or an explanation, if applicable.

Verdict: A judgment resulting from analysis of columns 2 and 3. Allowed verdict choices are:

Pass
Fail
N/A (Not applicable)

3.4.3 Measurement section (Section 3 of the TRF)

This section contains tables with the measured values, specific test conditions, test remarks and additional testing information.
All measurement tables shall have supplementary information field at the bottom of the table to provide room for clarification of test parameters.
An example of a measuring section is shown in Annex C and Annex E.

3.4.4 Critical components and/or materials section (Section 4 of the TRF)

A table describing critical components and/or materials is an integral part of each TRF.
The Critical Components and Materials table shall be the last section after the measurement section to assist in prompt identification of component information in the Test Report. This table has only the title and no number. It can have two styles of rows. The first style has six columns:

a) Object / part No. => name of component or identifier, for example mains switch, T10, C3, F1 (ID of the components on schematics, wiring diagrams, and similar), main enclosure, bottom plate, terminal pins….

b) Manufacturer/trademark => the manufacturer's name shall be specified, except for some materials (for example metal plate, heat sink, terminal pins) or for generic components specified in CTL Decisions, such as PWB.

c) Type / model => When applicable, a designation that allows identification of the component

d) Technical data => relevant ratings and/or characteristics for components that are critical for compliance with the standard (for example the following may apply but is not limited to electrical component ratings, material thickness, flammability rating and similar)

Cl.	Requirement-Test	Result	Verdict
20.5	Length≥10 m .... :	12，5	Pass

补充测试内容，如只要求补充信息而无需做出判定时，判定域用阴影填充（12.5%灰色）：

Cl.	Requirement-Test	Result	Verdict
3.2.1	Test temperature（℃）..................... :	23，5	—

3.4.2.2　结果和判定

结果（Result）：由第二列内容得到的结果，如适用，可以填写测量值、注或解释。

判定（Verdict）：根据对第二列与第三列的分析做出判定。允许的判定选项为

Pass（合格）

Fail（不合格）

N/A（不适用）

3.4.3　测量部分（TRF 的第三部分）

这部分包括测量值、具体测试条件、测试的注以及附加测试信息。在所有测量表格的底部应留有一个填写补充信息的空格作为测试参数的说明。

附录 C 和附录 E 是测量部分的示例。

3.4.4　安全件和/或材料部分（TRF 的第四部分）

用来描述安全件和/或材料的表格是每一个 TRF 的组成部分。在测试报告中，安全件和材料表格应放在测试部分的后面以便于快速识别零部件信息。这类表格只有标题，没有序号，可以采用两种行格式。第一种格式有 6 列：

a）名称/编号：零部件名称或识别码，例如：电源开关、T10，C3，F1（原理图、电路或其他类似文件中的零部件识别码）、外壳、底板、端子插脚等。

b）制造商/商标：应列出制造商的名称，除了有些材料（例如金属板、散热片、端子插脚）或在 CTL 决议中特别提到的一般零部件，如印制电路板。

c）规格 / 型号：可能的话，应列出用来识别零部件的型号。

d）技术数据：涉及标准符合性的关键零部件的额定值或特性参数，例如：提供下列参数（不限于这些参数）：电器零部件等级、材料厚度、易燃性等级或其他类似参数。

e) Standard => Applicable IEC or National harmonized component standard, or product standard if investigated as part of the product

f) Mark(s) of conformity => Provided evidence ensuring the agreed level of compliance. See OD-CB2039.

The second row style is to allow more space for additional information. This row consists of two columns: “Description” and a free text field.

A typical component table has the following layout:

	TABLE: List of critical components				
Object/part No.	**Manufacturer/ trademark**	**Type/model**	**Technical data**	**Standard (Edition / year)**	**Mark(s) of conformity[1])**
- Description:					
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

Note: The free text field provides additional space for information that may not fit in the standard cell format. The use of this row is optional, and when used, it is always in conjunction with the object/part number specified in the row above it.
A completed table is provided in Annex E.

3.5 Standardized attachments

3.5.1 National Differences (when applicable)

a) This attachment is used for National Differences requirements. The National Differences Test Report Forms are structured as described in Clause 3.4.2 except a unique cover page is used for National Differences TRFs. A measurement section may also be included (as in clause 3.4.3) when needed to record specific measurements.

Note: By National Differences it is meant National Differences, Group Differences and Special National Conditions. Normally, the National Differences TRFs are provided by Member Bodies at the time of the Acceptance of Standards used in the IECEE CB Scheme as the basis for the national certification or are prepared by the originator appointed by IECEE Secretariat.

b) Countries listed in the “Summary of compliance with National Differences” field may only include those countries for which either a completed National Differences TRF is attached or those countries that declared no National Differences.

c) When the investigation covers more than one edition of the standard, a TRF that includes the requirements from more than one standard edition may be used (see clause 3.7). In this case the attached National Differences TRFs may also address National Differences to more than one edition of the standard as applicable for the target countries requested by the Applicant.

e）标准：适用的 IEC 标准、协调的零部件国家标准，或产品标准（如果零部件随整机测试）。

f）符合性标志：提供证据以确保可接受的符合性水平。见 OD-CB2039。

第二种行格式可以为补充信息提供更多的空间。这种格式包括两个栏目："描述"和空白区域。

典型的零部件表的格式如下：

	TABLE：List of critical components				
Object/ part No.	Manufacturer/ trademark	Type/model	Technical data	Standard (Edition/ year)	Mark (s) of conformity1)
-Description：					
Supplementary information：1) Provided evidence ensures the agreed level of compliance. See OD－CB2039.					

注：空白区域为不适于在标准格式中填写的信息提供更多空间。这一行的使用具有可选性，使用时，经常与这一行上面的名称/编号相关联。附录 E 提供了一个完整的表格。

3.5 标准的附录

3.5.1 国家差异（如果适用）

a）该附录适用于有国家差异的需求。在上文第 3.4.2 章节中规定的测试报告格式除了封面页之外，同样适用于国家差异的 TRF。如果要记录特定的测量值，还应包括测量部分（见 3.4.3 章节）。

注：国家差异是指各个国家间的差异，集团差异以及特殊的国家现状。通常，当某个标准被接受加入 IECEE CB 体系并作为国家认证的基础，成员机构应同时提供国家差异的 TRF。或者由 IECEE 秘书处指定起草人来制定。

b）在"国家差异符合性摘要"中列出的国家只包括那些提供完整国家差异 TRF 或声称不存在国家差异的国家。

c）当测试覆盖标准的多个版本时，应使用满足多个标准版本要求的 TRF（见条款 3.7）。在这种条件下，附件中的国家差异 TRF 也包含适用多个标准版本并适用于申请者所要求目标国家的国家差异。

d) Individual National Differences TRFs may be combined into one attachment with all pages numbered sequentially or each National Differences TRF might be placed one after the other, however, the list of attachments must include the list of all National Differences TRFs attached. A separate National Differences TRF for Part 1 and Part 2 Standards may also be combined into one attachment with all pages numbered sequentially.

Examples of TRFs for National Differences are shown in Annex C and in Annex E.

3.5.2 List of Test Equipment (when applicable)

The CB Test Reports generated under Manufacturer's Testing Programs, TMP and WMT shall contain an attachment, listing test equipment utilized during the testing. The equipment list is optional for SMT and RMT programs.

Note: Annex C and E include an example of the required attachment for testing conducted under the manufacturer testing programs, TMP and WMT. The form is optional for SMT and RMT programs. Other forms with a different layout but containing corresponding information are also acceptable.

3.6 Instructions for TRF originators

3.6.1 The "Requirement – Test" column in the TRF is a summary of the requirement. The full text of the standard shall not be repeated.

3.6.2 All pages of the Test Report Form shall be numbered continuously with the total number of pages indicated.

3.6.3 The TRF is a part of the conformity assessment, therefore, the wording used in the "Requirement – Test" column needs to be simple and needs to prompt for a clear "Pass", "Fail" or "N/A" verdict. (Acceptable verdicts are also repeated in the TRF template).

3.6.4 Words such as "shall" and "should" are normally reserved for requirements and recommendations in the standard, respectively. Since the Test Report requires a confirming verdict for each clause, it is necessary to use indicative rather than imperative phrases when abbreviating the requirements.

(Example:
Instead of: "Time-delay fuse shall be used", the correct wording in the TRF states "Use of time-delay fuse".)

3.6.5 Sub-header style in the TRF should be used when many regular test cases apply to the same header. However, the use of too many sub-headers in a sequence without any regular test case entries that follow the sub-headers should be avoided when possible. It makes the TRF too lengthy, difficult to handle and computerize.

3.6.6 Special care must be taken to avoid situations in which a "Fail" verdict in the Test Report could be acceptable in overall product compliance.

Example:
Provided example is based on the IEC 60950, Third Edition.
The standard calls for a flammability test and allows repeating that test or running an alternate test in case of a failure. Therefore, the "Fail" verdict would be entered in the TRF for the first test, in which the failure occurred. In order to avoid this situation, the TRF originator must design the report form in such a way as to avoid the negative results. This could be accomplished by any of the methods presented below or similar, equally effective.

d）各个国家差异的 TRF 可以整和成页码连续的一个附录，或者依次排列不同的国家差异 TRF，但附录列表必须列出所附加的所有国家差异的 TRF。对应于标准第一部分和第二部分的独立的国家差异 TRF 也可以合并成一个页码连续的附录。

国家差异 TRF 的示例在附录 C 和附录 E 中列出。

3.5.2 测试设备清单（当适用时）

如果 CB 测试报告是按制造商测试程序出具的，那么 TMP 和 WMT 应包括测试设备清单的附录，而对 SMT 和 RMT 测试程序，设备清单是可选的。

注：附录 C 和附录 E 给出了在按制造商测试程序 TMP 和 WMT 进行测试时要求提供的附录。对于 SMT 和 RMT 程序，此表格为可选。采用不同格式但能够提供相应信息的其他表格也是可以接受的。

3.6 给 TRF 起草人的说明

3.6.1 TRF 的“要求-测试”一栏是测试要求的摘要，并不需要引用相关标准的全部内容。

3.6.2 测试报告各部分中的每一页上都需编号并应标明测试报告的总页数。

3.6.3 TRF 是符合性评定的一部分，所以在“Requirement-Test”一栏的语言要尽可能简单、易懂，从而能够迅速作出“Pass”、“Fail”、“N/A”的判定（合格判定应在TRF 模板重复出现）。

3.6.4 类似于“shall”、“should”等词汇常被用于表述标准里的要求。不过，由于测试报告对每一个章节都要一个确定的判定，当简略描述这些要求时应采用陈述语态而非祈使语态。

（示例：用“Use of time-delay fuse”来替代“Time-delay fuse shall be used”）

3.6.5 在许多常规测试都适用于同样标题的情况下，可在 TRF 中采用分标题格式。但是如果可以的话，应尽量避免过多设有常规测试条目的分标题，因为这会导致 TRF 太过冗长而难于操作和计算机化。

3.6.6 在测试报告中应避免总体上产品符合要求而某些条款出现“Fail（不合格）”判定的情况。

示例：

下例基于 IEC 60950，第三版

当标准中要求进行可燃性测试，但允许在样品测试不合格的情况下重复该测试或进行替代测试时，那么第一次测试失败后，在 TRF 的判定栏中需要填写“Fail”。

为了避免上述情况，TRF 起草人在设计报告格式时应尽可能采取避免产生负面结果的方式。可使用下列方法中的一种或类似的等效方法。

3.6.6.1 TRF may provide instructions for CBTL in the “Remarks” column:

A.6	**Flammability tests for classifying materials V-0, V-1 or V-2**		Pass
A.6.1	Samples, material ....:	Material designation FR-556	—
	Wall thickness (mm) ....:	0.5	—
A.6.5	Flammability test compliance criteria	Note: This clause is not applicable if test per A.6.6 was conducted	N/A
A.6.6	Permitted re-test	All samples of the second set met the relevant criteria.	Pass

3.6.6.2 TRF may combine both tests in one clause and a comment can clarify the testing.

A.6	**Flammability tests for classifying materials V-0, V-1 or V-2**		Pass
A.6.1	Samples, material ....:	Material designation FR-556	—
	Wall thickness (mm) ....:	0.5	—
A.6.5 A.6.6	Compliance criteria and permitted re-testing	All samples passed the permitted re-testing.	Pass

3.6.6.3 TRF may utilize "type 3 verdict" (Auxiliary test case, requiring additional information but not a verdict):

A.6	**Flammability tests for classifying materials V-0, V-1 or V-2**		Pass
A.6.1	Samples, material ....:	Material designation FR-556	—
	Wall thickness (mm) ....:	0.5	—
A.6.5	Flammability test ....:	Add comment as appropriate	—
A.6.6	Permitted re-test.....................................:	Add comment as appropriate	—
	Compliance criteria for flammability tests and re-tests		Pass

3.7 TRF Originator’s responsibility before submitting Test Report Form to IECEE

3.7.1 Care must be taken to avoid common TRF mistakes before submitting the TRF to IECEE for distribution to members.

3.7.2 The originators are expected to validate the TRF using the checklist for TRF Originators (See Annex B).

3.8 Special case TRFs

Special case TRFs are only developed when IECEE members have identified market needs. They are not applicable and /or practical for all product categories.

3.6.6.1　TRF 中可在“Remarks（备注）”栏为 CBTL 提供说明

A.6	**Flammability tests for classifying materials V-0，V-1 or V-2**		Pass
A.6.1	Samples，material..................... :	Material designation FR-556	
	Wall thickness（mm）................. :	0.5	
A.6.5	Flammability test compliance criteria	Note：This clause is not applicable if test per A.6.6 was conducted	N/A
A.6.6	Permitted re-test	All samples of the second set met the relevant criteria.	Pass

3.6.6.2　TRF 可将两次测试合并在同一款中并加注说明

A.6	**Flammability tests for classifying materials V-0，V-1 or V-2**		Pass
A.6.1	Samples，material...................... :	Material designation FR-556	
	Wall thickness（mm）.................. :	0.5	
A.6.5 A.6.6	Compliance criteria and permitted re—testing	All samples passed the permitted re-testing.	Pass

3.6.6.3　TRF 可以适用“type 3 verdict（第三类判定）”（填写辅助测试情况，要求附加信息，但无需进行判定）

A.6	**Flammability tests for classifying materials V-0，V-1 or V-2**		Pass
A.6.1	Samples，material...................... :	Material designation FR-556	
	Wall thickness (mm) .... :	0.5	
A.6.5	Flammability test .... :	Add comment as appropriate	
A.6.6	Permitted re-test...................... :	Add comment as appropriate	
	Compliance criteria for flammability tests and re-tests		Pass

3.7　测试报告格式提交 IECEE 前 TRF 起草人的职责

3.7.1　在提交给 IECEE 发布给各成员机构前应避免出现 TRF 的常见错误。

3.7.2　起草人最好通过 TRF 的起草人检查表来保证 TRF 的有效性（见附录 B）。

3.8　特殊的 TRF

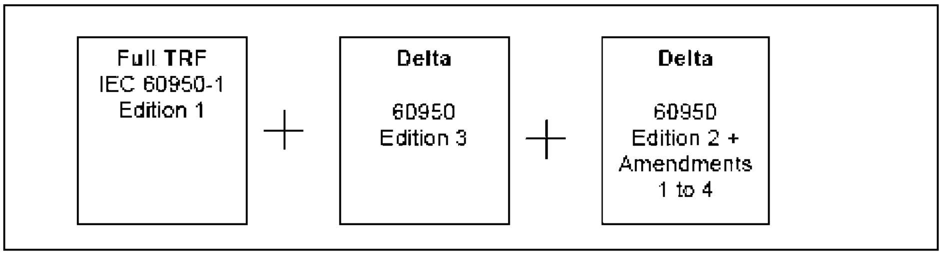
特殊的 TRF 只有经 IECEE 成员确认市场需求后才能编制。它们不适用于和/或不是对所有的产品类别都具有实用性。

3.8.1 Generating integrated TRFs covering different editions of the same standard

<u>Note</u>: Model 3 TRF described in Document IECEE CMC/509/RCMC.

3.8.1.1 In order to efficiently cope with situations where manufacturers target the worldwide market and wish to seek a CB Test Certificate that covers more than one edition of a particular standard (e.g. IEC 60950-1, First edition and IEC 60950, Third edition and IEC 60950, Second edition with Amendments 1-4), a TRF that includes the requirements from more than one standard edition may be developed.

a) The structure of the TRF (shown here based on the example of IEC 60950) shall be as follows:



b) Full TRF is based on the latest standard edition
c) Delta TRFs include the requirements from the previous edition(s).

3.8.1.2 Rules for the preparation of Delta TRFs:
a) If the latest edition has more stringent requirements, the Delta TRF does not need to list these requirements
b) If an alternate or new test method is in the latest edition, the old test method needs to be included in the Delta TRF
c) The Delta TRF shall always contain more stringent requirements not existing in the latest edition.

<u>Note:</u> If there are conflicting requirements in the previous and the new edition, or when the product cannot meet the more stringent requirements in the new edition, the NCB must use the TRF for the previous edition of the standard. The use of Delta TRFs is not allowed in this case.

3.8.1.3 Proposed wording when completing Delta TRFs:
In case the TRF originator feels that for the clarity of the overall Report, the Delta TRF should contain clauses that are already included in the new edition TRF, the following wording may be used when completing the Delta TRF:
"Compliance with Clause XX of the new edition of the standard fulfils the requirements of this Clause."

3.8.1.4 TRF identification:

The Delta TRF is identified by suffix "delta" added to the TRF reference number according to Clause 3.3.

3.8.1　编制覆盖同一标准不同版本的整体式 TRF

注：Model 3 TRF 在 IECEE CMC/509/RCMC 文件中描述。

3.8.1.1　为了有效应对制造商面向全球市场、寻找能够覆盖一个标准多个版本（如 IEC 60950-1，第一版和 IEC 60950，第三版和 IEC 60950，第二版修订版 1～4）的 CB 认证的情形，可以编制一种能够覆盖一个标准多个版本的 TRF。

a）TRF 结构如下（以 IEC 60950 为例）：

完整 TRF IEC 60950-1 第一版	+	差异部分 IEC 60950-1 第三版	+	差异部分 IEC 60950 第二版+增补件 1～4

b）完整 TRF 以最新版的标准为基础。

c）差异 TRF 包含之前版本的要求。

3.8.1.2　准备 Model 3 差异 TRF 的规则

a）如果最新版本添加了更多严格的要求，那么差异 TRF 就不需要列出这些要求。

b）如果在最新版本中出现了不同的或新的测试方法，那么在差异 TRF 中要包含以往旧的测试方法。

c）差异 TRF 应包含最新版本里没有的更严格的要求。

注：如果在最新的版本和之前版本中存在互相矛盾的要求，或者产品不能满足新版本里的更严格要求，那么 NCB 必需使用基于旧版标准的 TRF。在这种情况下，不允许使用差异 TRF。

3.8.1.3　编制差异 TRF 时的措词建议：如果 TRF 起草人认为要清晰反映报告的完整性，差异 TRF 就需要包含新版 TRF 中已包含的条款，在编制 TRF 时可使用以下这句话：

"Compliance with Clause XX of the new edition of the standard fulfils the requirements of this Clause."

3.8.1.4　TRF 标识

差异 TRF 要依照 3.3 条款，通过在当前 TRF 编号上添加后缀"delta"来进行辨识。

Example: The suffix "delta" added to the "B" version means a TRF, which covers differences between version "A" and version "B" of the corresponding editions of the IEC standard.

3.8.2 Generating integrated TRFs covering two different standards

3.8.2.1 This type of product combination TRF benefits particular segments of some industries where there is a need to have the identical device complying with more then one IEC standards.

Note: An example within the medical industry includes power supplies, which often need to comply with two safety standards, IEC 60601-1 for Medical products and IEC 60950–1 for IT products. Typically, these are IT equipment and associated power supplies that will need to additionally comply with IEC 60601-1 either due to a specific application or in consideration of the manufacturer's desire for broader market access.

3.8.2.2 Product combination TRFs are supplements to the existing TRFs based on a product and not on a single IEC standard; they may be developed across various categories.

3.8.2.3 When creating a product combination TRF, one standard is selected as the main standard. The selected main standard shall cover the majority of the required tests.

Example: IEC 60950-1 selected as main standard and supplement TRF for combination with IEC 60065, or IEC 60601-1, or IEC 61010-1.

3.8.2.4 TRF Originator shall identify the most severe requirements in all applied standards and eliminate Clauses that are not applicable to the investigated product.

3.8.2.5 The originator shall identify common requirements to avoid duplication in the supplementary TRF.

3.8.2.6 Any additional requirements that address the use (for example: outdoor use, high altitude use, hospital environment or other application considerations) are to be identified and included in the combination TRF.

3.8.2.7 The combination TRFs shall be so designed that the supplemental Annex can only be used for a specific product it has been prepared for and together with the main standard TRF.

3.8.2.8 Cross references as in the example below are acceptable.

In a supplement TRF developed to include IEC 60601-1 requirements for product investigated according to IEC 60950-1:

Clause	Requirement + Test	Result –Remark	Verdict
1.1.1	Test name (for example input test)	See Test Report for IEC60950-1	Pass

3.8.2.9 To ensure the acceptance of product combination TRFs by Receiving NCBs, the appointment of TRF originator and the distribution of TRF shall follow the OD CB 2020. Only the approved and officially published product combination TRFs shall be used.

3.8.2.10 The NCBs have an option of using the approved, complete TRFs for the product in question instead of the product combination TRFs.

例：在“B”版本中添加后缀“delta”表示此 TRF 涵盖了相应 IEC 标准的版本“A”和版本“B”之间的差异。

3.8.2 编写覆盖两个不同标准的整体式 TRF

3.8.2.1 这种产品组合型 TRF 有利于某些行业中同一设备需要符合多个 IEC 标准的情况。

注：例如在包含电源供应的医疗行业里经常要满足两个安全标准，用于医疗产品的 IEC 60601-1 和用于 IT 产品的 IEC 60950-1。通常情况下，IT 设备和与之配套的电源由于特殊的应用或者基于生产商扩大市场的需要，需要额外满足 IEC 60601-1。

3.8.2.2 产品组合型 TRF 是对现有 TRF 的补充，它基于产品而不是基于单一的 IEC 标准，可以跨越不同的产品类别建立。

3.8.2.3 建立一个产品组合型 TRF 时，选择一个标准作为主标准，被选择的主标准应覆盖要求测试的主体部分。

例：以 IEC 60950-1 作为主标准，与 IEC 60065 或 IEC 60601-1 或 IEC 61010-1 组合起来形成补充 TRF。

3.8.2.4 TRF 起草人应在使用的所有标准中标识出最苛刻的要求，删除不适于被测产品的条款。

3.8.2.5 起草人应标识出通用要求以避免在补充 TRF 中重复。

3.8.2.6 所有说明使用情况的附加要求（例如：室外使用、高纬度条件使用、医疗环境或其他使用条件）应明确标识并包含在组合型 TRF 中。

3.8.2.7 组合型 TRF 的设计应使得补充附录只能与主标准 TRF 一起用于专门针对的特定产品。

3.8.2.8 下列示例中的交叉引用是可以接受的。

对按照 IEC 60950－1 测试的产品，在补充 TRF 中包含 IEC 60601-1 的要求。

Clause	Requirement＋Test	Result－Remark	Verdict
1.1.1	Test name (for example input test)	See Test Report for IEC60950-1	Pass

3.8.2.9 为确保认可 NCB 对产品组合型 TRF 的接受，委任 TRF 起草人和发行 TRF 应遵守 OD CB 2020。只有被批准并正式发行的产品组合 TRF 才能够被使用。

3.8.2.10 NCB 可以选择采用产品的被批准的、完整的 TRF，而不使用产品组合型 TRF。

3.8.3 Generating TRFs combining several Part 2 standards

3.8.3.1 This type of combination TRF may benefit particular segments of the industry where there is a need for a report addressing products combining several features into one appliance within the same product category.

Note: Examples of such TRFs within the HOUS category are
- a washing machine with a spin extractor and tumble dryer (IEC60335_2_4&7&11)
- stationary cooking ranges, hobs, ovens and deep fat fryers or frying pans (IEC60335_2_6&13)
- a room heater and clothes dryer/towel rail IEC60335_2_30&43.

3.9 An example of a Test Report Form

For an example of a TRF see Annex C.
Note: The selected example is from the TRF for IEC 60601 Part 2 and contains a statement: "This Test Report Form is intended for the investigation of .... in accordance with IEC 60601-2-xx. It can only be used together with the IEC 60601-1 Test Report."
For TRFs that combine Part 1 and Part 2 requirements into a one Test Report Form, this statement is not applicable.

3.10 Use of landscape oriented pages in the TRF

The Test Measurement section of TRF may contain large tables. If it is not practical to continue the table using the "portrait" orientation due to the large size, the table may be designed and printed in the landscape format. An example of a TRF page in landscape orientation is shown in Annex D.

In case of the landscape orientation the margins shall be as follows:
3 cm from the top of the table and 2 cm from the bottom, and
2 cm left and right margin from the table.

3.11 Use of abbreviations used in the report TRF

When abbreviations are used throughout the report, they shall be clarified. See an example in Annex F, Page 60.

3.8.3 编制组合多个标准第二部分的 TRF

3.8.3.1 这种组合型 TRF 有利于某些行业的属于同一个产品类别的多功能器具的情况。

注：在 HOUS 类别中，这种 TRF 的例子有：

—具有旋转甩干和滚筒式烘干机的洗衣机（IEC 60335 _ 2 _ 4&7&11）；

—驻立式电灶、灶台、烤炉和深油炸锅或煎锅（IEC 60335 _ 2 _ 6&13）；

—房间取暖器和干衣机/毛巾架（IEC 60335 _ 2 _ 30&43）。

3.9 测试报告格式示例

TRF 的实例见附录 C

注：所选例子是 IEC 60601 TRF 的第二部分，附页中包含了如下陈述"This Test Report Form is intended for the investigation of … in accordance with IEC 60601-2-xx . It can only be used together with the IEC 60601-1 Test Report"（该测试报告格式旨在根据 IEC 60601-2-xx 对……进行检查，仅可与 IEC 60601-1 测试报告一起使用）。对于第一部分与第二部分的要求合并在一份 TRF 中的情况，该陈述不适用。

3.10 TRF 中采用横向布局页

在 TRF 的测试部分可能会包含比较大的表格。如由于尺寸过大而无法继续采用纵向表格，则可将表格设计、打印为横向格式。横向布局页的示例见附录 D。

若采用横向表格，则页边距应设置如下：

表格顶部距页面顶部 3cm；

距底部 2cm；左右边距各 2cm。

3.11 TRF 报告中使用的缩写

如果在报告中使用缩写，则必须进行说明。示例见附录 F 的第 60 页。

Part 4
Guidelines on how to fill in TRFs

The following shall be taken into account when completing a test report form (TRF):

Examples of completed Test Report pages and instructions on how to complete Test Report page are in ANNEX E.

4.1 Modifications to the TRFs

The Test Report Forms shall not be modified. However, to help preserve the environment, when compiling the Test Report, whole clauses of the TR may be omitted as specified in Annex E if they are not applicable to specific product.

4.2 Completing TRFs

When completing each sub-clause of the TRF, comments indicating why the particular item passed, failed or is not applicable should be included as necessary for clarity. The Report shall provide sound, sufficient information to grant the certification without the necessity to conduct additional evaluation or testing.

Note: Therefore, whenever possible the Test Report should also be accompanied by additional information, such as schematics, insulation diagram, detailed component information and report on compliance with National Differences.

4.3 A blank Test Report consists of four sections.

Testing Laboratories shall complete, as a minimum, these four sections. The Test Report shall include photos (see clause 4.10.1). The Report may also contain additional attachments, such as for example, National Differences TRF(s).

4.4 First section of the TRF

The first section (general information) includes a cover page that contains the general information, such as names and addresses of Testing Laboratory and Applicant/Client, testing location, standard used, product name, model(s) and rating(s). This page shall be always completed.

4.4.1 In case of the LTR program use, the following cases may apply:

- When LTR is associated only with the NCB:

CB Testing Laboratory ....:	N/A – LTR program used under the supervision of the NCB

- When a CBTL is appointed for the supervision of the LTR:

CB Testing Laboratory ....:	The name and address of the appointed CBTL

4.4.2 Pages behind the cover page contain signature page, testing laboratory information, factory list, specific information related to the product under test, marking details, and other general testing and report information.

第四部分
填写 TRF 的指南

在填写测试报告格式（TRF）时应该考虑下列指导内容。

完整的测试报告页示例和如何完成测试报告页的说明见附录 E。

4.1 TRF 的修订

测试报告格式不能修改。然而为保护环境，在编排测试报告时，如附录 E 所述，当不适用于特定产品时，可以删除整个条款。

4.2 完成 TRF

完成 **TRF** 的每一项子条款时，为清晰表述，必要时应加入用于解释某特定项目通过、不合格或不适用原因的备注。报告应为支持认证结论提供清晰、充足的信息，而不需再进行补充评估或测试。

注：因此，只要可能测试报告应包括附加信息如：原理图、绝缘图、详细零部件信息和国家差异报告。

4.3 一份空白的测试报告应该包括 4 个部分

测试实验室至少应完成这 4 个部分。测试报告中还应包含照片（见 4.10.1 章节）。测试报告也可能还包含附录，如国家差异 TRF。

4.4 TRF 的第一部分

在第一部分（基本信息）中应包括封面，其中应具有实验室名称、地址、申请人/客户、测试地点、适用标准、产品名称、型号及额定值等相关内容。此页必须完成。

4.4.1 当采用 LTR 程序时，下列情况可被应用：

——当 LTR 只与 NCB 关联时：

CB 检测实验室	不适用在 NCB 监督下使用 LTR 程序

——当 CBTL 被指定监督 LTR 时：

CB 检测实验室	被指定 CBTL 的名称和地址

4.4.2 封面后的内容主要是签字页、测试实验室信息、生产厂列表、与测试产品相关的具体信息、商标以及报告和测试的基本信息。

4.5 Second section of the TRF

4.5.1 The compliance checklist is the second section of the Test Report formatted into 4 columns. The first two columns titled: "Clause" and "Requirement-Test" are provided for reference only and shall not be modified by the Testing Laboratory. For the complete text of the requirement, testing engineers shall refer to the standard. In case of any discrepancy between the standard and the TRF, the standard text shall prevail.

4.5.2 The next column, called "Result", needs to be completed as part of the investigation. In this column a measured value or an explanation shall be typed; anything that results from the requirement in column two. The fourth column confirms the compliance, states non-compliance or declares the particular clause as not applicable. The verdicts can be "Pass" ("P"), "Fail" ("F") or "N/A". See also TRF template.

4.5.3 Since there are different test case types in a TRF, the Testing Laboratory shall pay special attention to the type of the clause in order to correctly complete the TRF.

4.6 Third section of the TRF

4.6.1 The third section contains tables and may contain special remarks.
Tables are provided to record the actual measurements taken during the test. It is not allowed to use statements such as "OK", "meets the standard", "more than", "less than", or similar instead of the measured value, unless otherwise specified by CTL.

4.6.2 Tables also provide room for information about test conditions (supplementary information field). When completing measurement tables, traceability of measurement must be ensured. When necessary table rows can be multiplied, however, adding new tables or removing tables is not allowed.

Note: Examples of measurement tables containing test data for more than one model or part are shown in Annex E.

4.7 Fourth section of the TRF

4.7.1 The fourth section contains a table describing critical components and/or materials.

4.7.2 The information to be included in the critical components and materials table shall be based on the following:

a) The CTL clarification: "A safety critical component can only be determined upon a preliminary examination/evaluation of the electrical diagram/design/construction. When the design of the product is such that a determined component, in case of failure, can compromise the safety aspect, this component is defined as "safety critical".
b) Components, which have specific requirements in the end product standards.
c) Components, which have requirements in the National Standards included in the evaluation
d) Materials, which are critical to maintain compliance with the standard (such as corrosion requirements, flammability)
e) Professional judgment of the CBTL/NCB.

Note: Additional information can be provided in the free text field of a Description row. An example is shown in Annex E.

4.5　TRF 的第二部分

4.5.1　测试报告的符合性核查栏主要包含 4 列。前两项内容为“Clause（条款）”和“Requirement-Test（测试要求）”，这两项内容仅作为引用，实验室不应对其内容进行修改。测试工程师应引用相关标准以获得相关要求的全文。如果 TRF 与标准有矛盾，应以标准为准。

4.5.2　接下来一列为“Result（结果）”，作为填写测试结果部分。在这一列中应填入满足第二列测试要求的测试结果，可以是实测值也可以是注释说明。最后一列用于判定测试是否合格或者该条款不适用（判定应为“Pass”、“Fail”或为“N/A”）。参见 TRF 模板。

4.5.3　由于在 TRF 中有不同的测试类型，因而实验室应特别注意条款的类型，以确保正确的完成 TRF。

4.6　TRF 的第三部分

4.6.1　第三部分包括了表格以及一些特殊注释。表格用于记录测试的实际测量值。不允许使用类似“OK”、“符合标准”、“大于”、“小于”或类似用语来代替测量值，除非 CTL 另有规定。

4.6.2　表格也为测试条件信息提供空间（补充信息空间）。完成测量表格时，必须保证测量的可追溯性。需要时，可以增加表格行数，但不允许增加新表或删除表格。

注：附录 E 给出了包含多个型号或零部件测试数据的测量表格范例。

4.7　TRF 的第四部分

4.7.1　第四部分内容是描述关键件和/或材料的表格。

4.7.2　关键件和材料的表格中应包括的信息应基于以下方面：

a）CTL 声明：关键安全零部件只能通过对电气图/设计/结构的初步检查/评价来确定。如果产品的设计使得某零部件失效时会危害产品的安全，则此零部件定义为“安全关键件”。

b）在整机标准中有特殊要求的零部件。

c）在评价过程涉及的国家标准中具有特殊要求的零部件。

d）对于保持标准符合性（如腐蚀性要求、易燃性）非常关键的材料。

e）CBTL/NCB 的专业判断。

注：附加信息可以在描述行的空白区域提供。附录 E 中有举例说明。

4.8 Attachments to the CB Test Reports

4.8.1 A complete Test Report shall contain an attachment with photos of the product taken according to CTL-OP 107, Guide on Use of Photographs in CB Test Reports.

4.8.2 An attachment addressing National Differences may be completed when requested by the Applicant. This attachment may be a merge of selected National and Group Differences TRFs into one document. The National Differences attachment shall have its own numbering of pages with a total number of pages indicated. An example of a completed ND TRF is provided in Annex E.
The "Summary of compliance with National Differences" field shall only contain the list of countries for which National and/or Group Differences have been addressed.

Optional compliance statement referring to the national or regional standard may also be used:

The product fulfils the requirements of _________ (insert standard number and edition and delete the text in parenthesis).

4.8.3 Completed list of used test equipment shall be provided as an attachment to the Test Reports when a Manufacturer Testing Laboratory TMP or WMT has been utilized. (Optional for SMTL and RMTL where quality system verified by the NCB ensures appropriate document control system in place). See Annex E for example of the equipment table.

4.8.4 According to IECEE 02, Clause 4.2.2, Test Reports may contain additional attachments, such as product description and other information necessary for identification of the product, additional test data, schematics, component licenses, and similar

4.8　CB 测试报告的附录

4.8.1　一个完整的测试报告应包含一个带有样品照片的附录，样品照片根据 CTL-OP 107 CB 测试报告中照片的使用指南拍摄。

4.8.2　根据申请者的需要，可以完成一个针对国家差异的附录。这个附录可以由选择的国家和地区差异 TRF 组合而成。国家差异附录应有单独的页码编排，并标明总页数。附录 E 中给出了一个完整的国家差异 TRF 示例。"国家差异符合性摘要"一栏中只应包含进行了国家和/或地区差异测试的国家列表。

也可以使用针对国家或地方标准的可选的符合性声明：

产品满足____________的要求（填写标准号和版本，删除括号中的文字）。

4.8.3　当采用制造商测试实验室 TMP 或 WMT 时，所有测试设备的列表应以测试报告的附录形式提供（对于 SMTL 和 RMTL 为可选项，其质量体系由 NCB 验证，保证了适当的文件控制体系）。设备表格的例子详见附录 E。

4.8.4　根据 IECEE 02，4.2.2 条，测试报告可以包含补充附录，如：产品描述和其他识别产品的必要信息，补充数据、线路图、零部件许可证和其他类似信息。

Part 5

Guidelines on how to prepare Amendment Reports

5.1 General

An Amendment Report can only be issued to the original CB Test Report. The Amendment shall state that it is not valid without the original CB Test Report. The original Test Report reference number shall be clearly identified in the Amendment to allow for logical tracking of product changes.

Amendment Reports to the original CB Test Report can be issued to correct and/or include the following:

- applicant name/address changes;
- manufacturer name/address change;
- factory location name/address changes;
- changes in model/type designation;
- addition of the similar new models/types; - (if none or limited testing is required)
- changes/corrections to electrical rating; - (if none or limited testing is required)
- product modifications; - (if none or only limited testing is required)
- new/alternate components added; - (if none or only limited testing is required).

Note 1: There are two main reasons for issuing an Amendment Report, technical modifications to the originally tested products (See IECEE 02, Clause 4.2.4) and corrections.

Note 2: Misprints and typo errors are treated as corrections. They are not considered a technical modification to the product. Once corrections are processed client/applicant may simply replace the affected pages in the original Test Report. (In order to be traceable, the corrections should have the date of correction typed on the corrected page). There is no limit on the number of allowed corrections.

5.2 Number of changes allowed to the CB Test Report

5.2.1 It may be necessary to modify the information contained in a CB Test Report several times. However, if these modifications are due to **technical changes to the certified product(s)** they are limited to three, after which a new CB Test Report (and CB Test Certificate) shall be issued. This shall not preclude issuing a new CB Test Reports and Certificates for every technical modification, if the Member NCBs and the Applicant wish to do so.

Note: It is recommended, however, that for extensive product modifications requiring testing, a new CB Test Report be issued, even if less than three technical modifications were previously processed.

5.2.2 Engineering judgment should be used regarding the issue of a new CB Test Report versus an Amendment Report, however, upgrading a CB Test Certificate and Report from an old edition of the standard to a newer edition of the standard requires issuing a new CB Test Certificate and a new CB Test Report. The appropriate TRF, matching the new edition of the standard, shall be used. An Amendment Report is not allowed in this case.

5.3 Identification of changes to CB Test Reports:

5.3.1 When a product is subject to **technical modifications**, both, the CB Test Certificate (under "Additional Information") and CB Test Report (under "General product information") shall clearly identify the nature of such modifications, as applicable.

5.3.2 The following rules apply when issuing an Amendment to the original CB Test Report:

5.3.2.1 The reason for the issued Amendment Report shall be explained. All changes made to the original Test Report shall be explained and conducted tests identified.

第五部分
编制变更报告的指南

5.1 概述

只有针对原始测试报告才能颁发变更报告。在变更报告中应该注明在没有原始 CB 报告的情况下该变更报告是无效的。原始测试报告的编号必须在变更报告中有清楚的体现，从而能够实现对于产品变化的合理追踪。

针对原始报告颁发的变更报告可用于更正和/或包含以下各项：

- 申请人名称/地址的变化；
- 制造商名称/地址的变化；
- 生产厂名称/地址的变化；
- 型号/规格变化；
- 添加相似新型号/规格（在无需进行测试或仅需进行有限的测试项目的情况下）；
- 电气额定值的变化/修改（在无需进行测试或仅需进行有限的测试项目的情况下）；
- 产品的变更（在无需进行测试或仅需进行有限的测试项目的情况下）；
- 加入了新的或可替换的零部件（在无需进行测试或仅需进行有限的测试项目的情况下）。

注 1：出具变更报告有两种主要原因，对原始测试产品的技术变更（见 IECEE 02 条款 4.2.4）和错误更正。

注 2：打印以及印刷错误的情况视为错误更正，不将其视为产品的技术变更。一旦进行了修改，客户或申请人仅需在原报告中替换修改页（为了能够实现溯源，在修改页上应该附有修改日期）。修改的次数没有限制。

5.2 CB 测试报告允许变更的次数

5.2.1 如果需要的话，可以对 CB 测试报告中包含的信息进行若干次变更。然而，如果是由于被测产品技术上的变化而导致的变更，最多不能超过 3 次，变更多于 3 次必须采用新的 CB 测试报告及 CB 测试证书。如果 NCB 成员愿意，也可以在每一次变更时都采用新的 CB 测试报告和证书。

注：对于需要测试的大量变更，推荐颁发新的 CB 测试报告，即使此前的技术变更小于 3 次。

5.2.2 应该采用新的 CB 测试报告还是采用变更报告需要做出技术判断。但如果是要将适用于旧版标准的报告以及 CB 测试证书升级为适用于新版本的标准，应颁发新的 CB 测试证书及报告，在这种情况下不允许使用变更报告的形式。

5.3 对于 CB 测试报告更改的标识

5.3.1 当产品进行技术变更时，在适用的情况下，CB 测试证书（在“附加信息”下）和 CB 测试报告（在“基本产品信息”下）应清晰地标识这种变更的性质。

5.3.2 当颁发对原始 CB 测试报告的变更时，应用下列规则：

5.3.2.1 应解释已颁发的报告更改的原因。所有对原报告的更改都应作出解释并标出所进行的测试。

Note: For example, if new models are being added, explain the differences and similarities between models and indicate tests that were performed or why tests were not performed.

5.3.2.2 All clauses and/or sub-clauses of the original Test Report that are affected by the changes should be appropriately revised. All pages included in the Amendment Report shall be marked with the correct identifier (e.g. Report Ref. number and the date when the changes to the original Test Report were made).

5.3.2.3 For illustration purposes, a few completed pages from an Amendment Report are shown in Annex F. The example shows Amendment No. 2 Report issued due to the technical modification to the product (critical components were added) with limited testing. However, the original Test Report was already modified once by Amendment 1 Report, which has been issued because new models were added. In this case, after engineering review of the differences and similarities between originally tested models and new models, no tests were considered necessary. In the provided example, the history of all changes and the reasons why the Amendment Reports have been issued are clearly documented.
After one more technical modification to the product a new CB Test Report shell be issued. The reissued Test Reports, construction review and the necessary testing shall be completed (see also IECEE 02, Clause 6.3.4).

5.3.2.4 Each Amendment Report shall contain its own "General information section", which shall be reproduced from the original Report with the necessary changes. If applicable, additional pages containing, revised clauses/sub-clauses and modified test tables for conducted tests, and/or other pages (such as photos, schematics, manuals) that are affected by the product modifications shall be appended.

5.4 Issuing a CBTC and CBTR over another CBTC

5.4.1 When issuing a CBTC over another CBTC (originally issued by NCB "1")the following conditions of recognition by the NCB "2" shall be followed and documented in the Test Report:
For NCB "2" to accept the CBTR/CBTC issued by NCB "1" for its own CB Certification, the Applicant shall provide all relevant details obtained from NCB "1" for the CBTR/CBTC in question. The NCB "2" shall arrange for:

- Obtaining a sample(s) and performing a construction review
- Performing any additional required testing, which will cover any new requirements (e.g. new edition of a standard, national differences, etc.) or address and evaluate changes made to the product.
- Recording the necessary information in the new CB Test Report. The source of the original test data from NCB "1" shall be identified in the new CB Test Report prepared under the responsibility of NCB "2" (Based on ISO/IEC 17025, Sub-clause 4.13.2, "Technical records,").

5.4.2 The information about the source of the original test data shall be provided in the section "Summary of testing." The date when sample was received for construction review shall be recorded in the "Date of receipt of test item" field. Additional clarification may also be provided in the "General Product Information section."

Note 1: The extent of retesting or further partial testing, such as selected clauses of the relevant standard(s), should be up to the professional judgment of NCB *"2"* as there can be various cases and each case may require a particular approach.
Note 2: As a minimum, the product is required to go through a construction review and any further partial testing deemed appropriate in the judgment of NCB *"B"* to fully cover any modifications to the product or according to a new edition of a standard, National Differences, etc.
Note 3: Since some tests may influence the tests that follow, the sequence of tests must always be considered.

注：例如，如果增加新型号，要解释型号间的异同，说明已经进行的测试或为什么没有进行测试。

5.3.2.2　原始测试报告中由于变更而影响的所有条款和/或子条款都要进行适当更改。用正确的标识方法标记变更报告的所有页码（如报告编号和对原始测试报告进行更改的日期）。

5.3.2.3　为方便解释，附录 F 中给出了一个变更报告中的一些已填写页面。在该例中，由于产品的技术变更（关键零部件增加），发行了变更报告 2，并进行了部分测试。然而，因为增加了新型号，原始测试报告已经根据变更报告 1 进行了一次更改。在这个案例中，经过对原来的和新测试型号的异同进行技术审核，确定不再需要进行测试。在提供的实例中，清晰描述了所有的变更历史和变更报告颁发原因。对产品再进行一次技术变更后，必须颁发新的 CB 测试报告。应完成测试报告的重新颁发，结构复核和必要的测试（见 IECEE 02，6.3.4 条）。

5.3.2.4　每个变更报告应包含自己的“基本信息部分”，由原始报告重新生成并进行必要的修改。如果适用，添加包含更改条款/子条款和实验进行后修改过的表格的补充页，和/或其他包含由于产品变更而受影响的信息（如相片、原理图、说明书）的页。

5.4　在其他 CB 测试证书（CBTC）的基础上颁发 CB 测试证书和 CB 报告（CBTR）

5.4.1　在其他 CBTC（原来由 NCB“1”发行）的基础上颁发新的 CBTC 时，下列由 NCB“2”认可的条件应被遵循并在测试报告中列出。如果 NCB“2”接受 NCB“1”颁发的 CBTR/CBTC 作为自己的 CB 认证的基础，申请者应提供从 NCB“1”获得该 CBTR/CBTC 的所有相关细节。NCB“2”应：

• 获取一件样品，进行结构核查。

• 实施任何要求的附加测试，测试要覆盖所有新要求（例如标准的新版本、国家差异等）或评估产品的变化。

• 记录新 CB 测试报告中的必要信息。从 NCB“1”得到的原始测试数据的来源应在由 NCB“2”负责的新 CB 测试报告中标示（基于 ISO/IEC 17025，子条款 4.13.2，“技术记录”）。

5.4.2　关于原始测试数据源的信息应该在“测试摘要”部分提供。收到样品进行结构复核的日期应记录于“接受测试样品日期”一栏。补充声明也可以在“产品基本信息部分”中填写。

注 1：重新测试或部分测试的程度，如相关标准的被选择条款，应由 NCB“2”进行专业判断，因为可能存在不同情况，每种情况下可能需要特定的方法。

注 2：产品应至少通过结构复核，和 NCB“B”认定的适当的部分测试，以便完全覆盖产品变更或满足标准新版本、国家差异等的要求。

注 3：由于有些测试会对后续过程产生影响，因此必须考虑测试顺序。

Part 6
Requests for modifications to TRFs

6.1 General

The use of the most recent TRF template is compulsory for all newly developed TRFs. Previously prepared TRFs for standards that are frequently used by the CB Scheme shall also be updated using the new template, however; there is no need for an immediate update of those TRFs that are infrequently used, unless specifically requested by members.

6.2 Modifications required due to an updated TRF Template

6.2.1 Most of template modifications are administrative in nature and simply reflect new CMC decisions. When the TRF template is modified, the IECEE Secretariat shall request the originators of TRFs to incorporate these modifications within the specified time frame. If this is not practical, the IECEE Secretariat shall allow non-originators to make the updates based on template changes (See clause 6.2.3). In either case, the TRFs need to be formally re-distributed to members.

Note: The updates of TRFs may also be used by the IECEE Secretariat to remove from the list of TRFs those forms that are obsolete and no longer in use. (See also clause 6.4).

6.2.2 When the originator is not able to provide the updated TRF in the a time frame requested by the Secretariat, and there is an urgent need for the updated TRF, another member appointed by the Secretariat can make the updates, however, the process shall be as follows:

- IECEE Secretariat always sends request to the originator after a new template is approved by the CMC and specifies the time frame for completion of the updates
- If the originator is not able to make that update, the IECEE Secretariat follows clause 6.2.3 and the administrative update path in ANNEX G.

6.2.3 Rules for administrative TRF changes:

- No reimbursement for administrative modifications to the TRFs
- The originator remains the same, since this is an administrative update only unless otherwise agreed with the IECEE Secretariat
- No technical changes to the TRF allowed when update is based on a new template
- New TRF version (suffix letter) is assigned
- Distribution according to ANNEX G (all correspondence with a copy to the originator)

Note: - In special cases, administrative changes may be combined with technical changes when agreed with the TRF originator and the IECEE Secretariat. For the correct procedure see clause 6.3.

6.3 Requests for technical modifications to published TRFs

Request for technical modifications shall be according to the flowchart in ANNEX G.

6.3.1 After a new TRF has been developed, the TRF is published on the IECEE website and considered "under comments".

6.3.2 The comment period is maximum 6 months depending on the complexity of the TRF and based on originator's recommendation. All comments are to be sent to the IECEE Secretariat using ANNEX I modification form.

第六部分
TRF 的修订要求

6.1　概述

对于所有新编制的 TRF 必须使用 TRF 的最新版本。以前针对被 CB 体系频繁使用的标准编制的 TRF 也应更新并采用新的模板。然而，除非有成员要求，对于那些不经常使用的 TRF 没必要立即更新。

6.2　由于 TRF 模板的升级引发的修订

6.2.1　大多数模板的更新本质上是管理性的，且仅与 CMC 决议对应。在 TRF 模板更新后，IECEE 秘书处应要求 TRF 的起草人在一定的时间内在报告格式中纳入这些更新。如果不可行，则 IECEE 秘书处应允许非起草人根据模板的变化进行更新（见 6.2.3 条）。在这两种情况下，都应正式将 TRF 重新发布给成员。

注：IECEE 秘书处也可以使用 TRF 的更新将 TRF 列表中被废除的和不再使用的格式删除（也可参照 6.4 条）。

6.2.2　起草人不能在秘书处规定的时间段内将 TRF 更新，而对该 TRF 的需求又很紧迫，则可以由秘书处指定的成员完成更新，但必须遵守以下程序：

－CMC 通过一个新的模板后，IECEE 秘书处都要向起草人提出要求，并规定完成更新的时间；

－如果起草人不能作出更新，IECEE 秘书处执行 6.2.3 条及附录 G 的管理更新途径。

6.2.3　TRF 管理更新规则

－TRF 的管理性更新没有经济补偿。

－因为是管理更新，起草人仍为原起草人，除非 IECEE 秘书处另行同意。

－不能对基于新模板的 TRF 进行技术改变。

－要指定 TRF 的新版本（后缀字母）。

－根据附录 G 发布（所有邮件抄送起草人）。

注：在特殊情况下，当与 TRF 起草人和 IECEE 秘书处达成一致意见时，管理变更与技术变更可同时进行。修正的程序详见 6.3 条。

6.3　申请对已颁布的 TRF 进行技术变更

技术变更的申请按照附录 G 中的流程图进行。

6.3.1　一个新的 TRF 建立后，该 TRF 在 IECEE 网站上公布，被认为“处于评论状态”。

6.3.2　评论时间根据 TRF 的复杂性并基于起草人的建议确定，但最长不超过 6 个月。所有的评论都应按附录 I 的变更格式发送至 IECEE 秘书处。

6.3.3 During the comment period all members can use the TRF without restrictions, however; all users shall be prepared to replace the TRF in their system, should the TRF be modified due to comments received from members and incorporated in the TRF.

6.3.4 Following the 6-months comment period, the originator shall incorporate received comments in the TRF. In case the provided comments cannot be included, the originator informs members and provides an explanation. In case of a disagreement, members can appeal to WG 9 and ETF, as appropriate. See flowchart in ANNEX G for details.

Note: TRF modification request form is not required when only minor and obvious corrections are needed. The use of the form is recommended when many changes are necessary. However, in all cases, the form helps tracking the implementation of modification requests.

6.3.5 After the modifications/comments provided by members have been incorporated in the TRF, the TRF is considered a “final form.” Normally, no additional changes are allowed at this stage (exception: only critical issues accidentally overlooked during the 6 months comment period can be processed).

6.3.6 CB Test Certificates issued in conjunction with Test Reports based on the preliminary version of TRFs shall be accepted as equivalent to the certificates provided with the final version of the TRFs.

6.3.7 The “Master TRF date” shall be the TRF publication date. The publication date will be different for the TRFs published on the IECEE website “under comments” and the final version TRFs. Once the TRF is finalized, the publication date is replaced with the new date, which designates the final version.

6.4 Simplified procedure for TRF distribution

The simplified TRF distribution procedure is used when either only the administrative changes to the TRF are made or when TRF updates are due to a simple Amendment to IEC standard. The main difference between the regular and simplified distribution procedure is the 6-months trail and comment period. In case of the simplified TRF distribution procedure, the TRF is immediately published as the final TRF. The TRF originator shall advise the IECEE Secretariat whether the simplified TRF distribution process is applicable. See also ANNEX G.

6.5 Updates of the IECEE list of TRFs

Only TRFs that are based on standard editions currently in the scope of the CB Scheme shall remain on the IECEE list of TRFs.

Old versions of the TRFs shall be identified as archived on the IECEE Website. Allowing access to old versions of TRFs is for reference only (due to previously issued CB Test Reports that may be still valid in some countries). The archived TRFs shall not be used to generate new Test Reports.

TRFs shall be moved to the archives according to the rule that if there are less than three (3) members using the old edition of the standard, the IEC standard is no longer operational in the CB Scheme.

6.3.3 在评论阶段，所有成员可以不受限制的使用 TRF。然而，当根据成员意见对 TRF 进行修改后，所有使用者都应准备替换他们系统内的 TRF。

6.3.4 经过 6 个月的评论阶段后，起草人应将收到的意见与 TRF 整合。在提供的意见不能被采纳的情况下，起草人应通知该成员并提供解释。当不同意时，在适当的情况下，成员可以向 WG9 和 ETF 反映。详见附录 G 中流程图。

注：当只有很小的或显而易见的更正时，不要求使用 TRF 变更申请表。当需要对多处进行变更时要求使用这种表格。然而，在所有情况下，表格都有助于对变更申请的执行进行跟踪。

6.3.5 TRF 纳入成员修改意见后，作为“最终版”。通常，在此阶段不能进行进一步修改（除非在过去的 6 个月的讨论期中忽视了关键性的争议）。

6.3.6 与初始 TRF 版本的测试报告配套颁发的 CB 测试证书应和与最终版 TRF 一起提供的证书同样被接受。

6.3.7 “TRF 母版的日期”应是 TRF 发行的日期。TRF 在 IECEE 网站上“评论状态”的发行日期与最终版 TRF 的发布日期不同。TRF 定版后，发布日期被代表最终版本的新的日期替换。

6.4 TRF 发布的简化程序

当 TRF 只进行管理变更或根据 IEC 标准的简单修订对 TRF 进行更新时，采用简化的 TRF 发行程序。常规的和简化的发行程序之间的主要区别在于 6 个月的试运行和评论阶段。在简化的 TRF 发行程序中，TRF 立即被视为最终版 TRF。TRF 起草人应针对 TRF 简化发行程序的适用性向 IECEE 秘书处提出建议。参见附录 G。

6.5 IECEE TRF 列表的更新

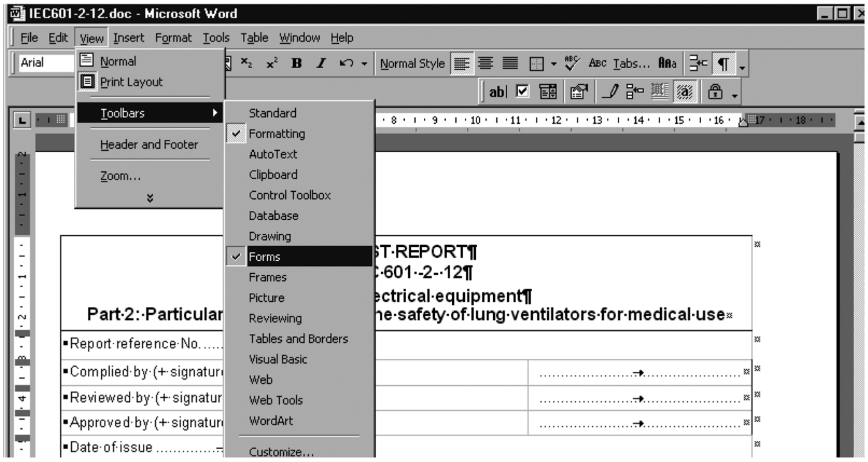
只有基于 CB 体系内现行标准版本的 TRF 才能保留在 IECEE 的 TRF 列表中。

TRF 的旧版本在 IECEE 网络上被标识为档案文件。获得 TRF 旧版本只是用于参考（因为以前发行的 CB 测试报告在有些国家可能仍然有效），归档的 TRF 不能用于产生新的测试报告。

如果使用旧版标准的成员少于 3 个，这个 IEC 标准就不再作为 CB 体系中的标准进行操作。根据这些规定，TRF 被转移成为档案文件。

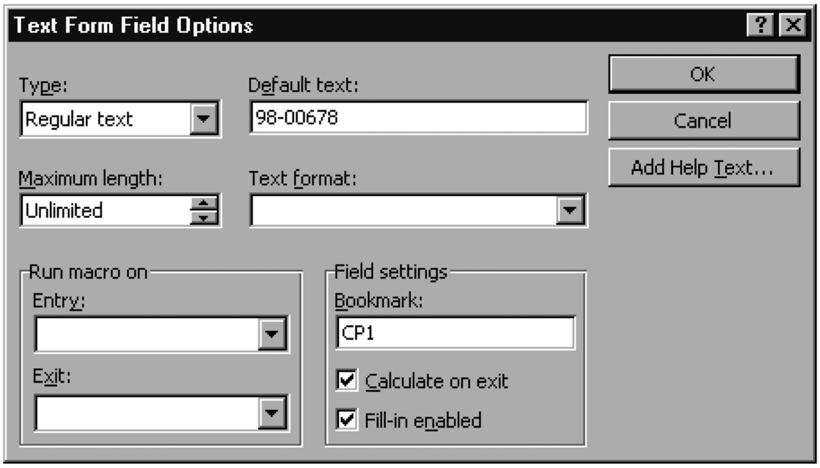
ANNEX A
Helpful hints for TRF Originators

1. In order to add an automatic update for all fields containing the same information, for example the Report Ref. Number, follow these instructions:
Select View, Toolbars, Forms



Move cursor into the space for Report Reference No. on the first page of the Test Report.
Then click on Text Form Field icon (ab). Select shading for easier identification of this new field.

Double click on the newly created Text Form Field to open the Text Form Field screen:

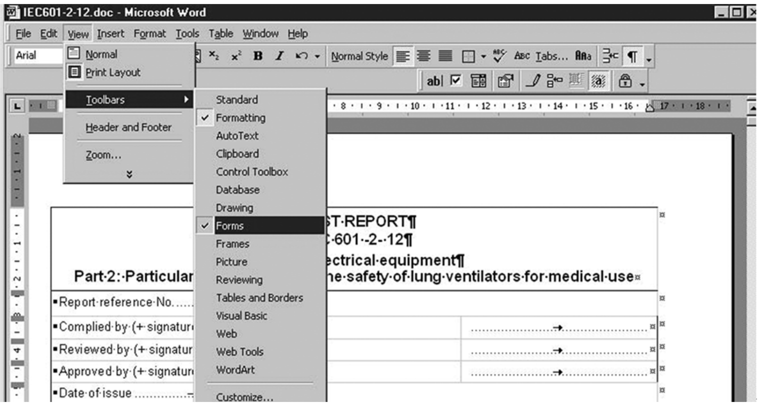


Type Bookmark name CP1 (use name CP1 for the Report Reference No. for consistency).
Type Report Ref. No. in the “default text field” and click OK.

Move cursor to any space where normally the Report Reference No. should be typed (normally in the header).

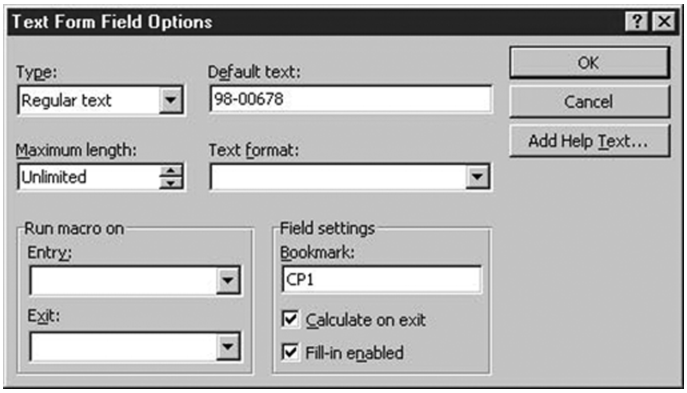
附录 A
针对 TRF 起草人的帮助

1. 为实现对于所有包含相同信息的地方添加自动更新，如测试报告编号，应按如下步骤进行操作：选择视图→工具栏→窗体。



将光标移动到测试报告第 1 页的报告编号处。然后选择文字型窗体域选项（ab）。选择窗体域底纹，从而使新生成的窗体域容易辨识。

双击窗体新窗体域选项打开文字型窗体域窗口。

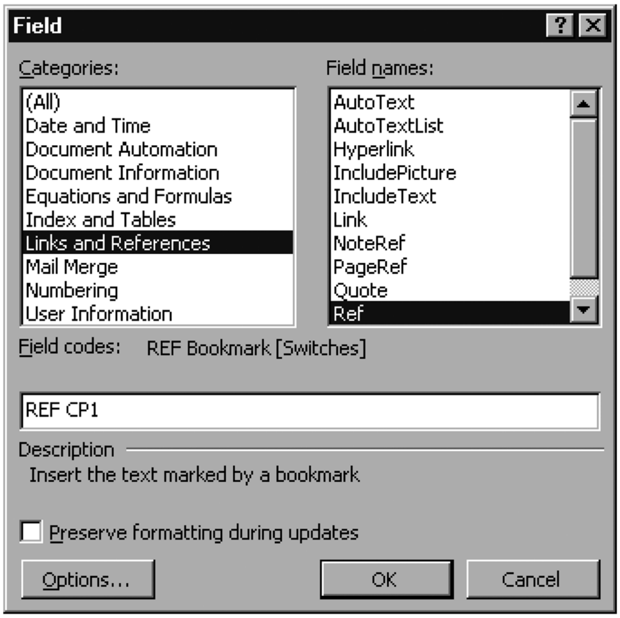


键入书签名称 CP1（测试报告编号名称全部都采用 CP1）。

在“默认文字域”一栏键入测试报告编号，然后点击确定。

将光标移动到通常填写测试报告编号的区域（通常是顶部），然后

Select Insert, Field, Links and References and Ref. Then type CP1 and click OK.
If you have several sections with different headers and page layout in the TRF you may need to repeat these steps for each section.



To use the update field feature go to the Text Form Field. Double click on the field, type the information (such as Report Ref. No.) in the “default text field” and click OK.

On each page of the printed document MS Word will automatically enter the text from the “default text field” into the selected locations with the REF CP1 identification.

2. In order **to add a dotted leader** for test cases requiring a specific result or comment in addition to the verdict, follow these instructions:

Cl.	Requirement - Test	Result	Verdict
20.5	**Length ≥ 10 m ....:**	12,5	Pass

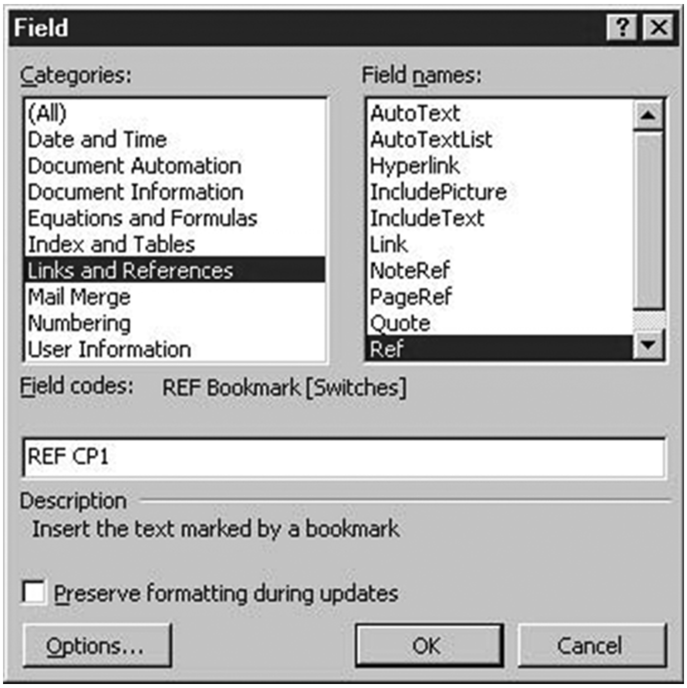
Move cursor to the second cell (“Requirement – Test”) and click Format then select Tabs.

In the “Tab stop position” type 6.7 cm (or as appropriate for the size of the table).
Set the alignment on “left”. Select the leader No. 2. Click on “Set” and then OK.

While still in the second cell, move cursor to the end of text in this cell and press “Control” + “Tab”. Add the **“:”** symbol.

选择插入→域→链接和引用再选择 Ref，然后键入 CP1，按确定。

如果在每部分中都有不同的标题和不同的 TRF 页面布局，那么需要在每部分中重复这些步骤。



要使用更新域特性需找到该文字型窗体域，双击该域，在“默认文字”中键入相关信息（如测试报告编号）。

在打印的文件中，MS Word 将在每一页的域代码 CP1 对应的位置自动添加“默认文字”中相关的内容。

2. 在测试中不仅要求作出判定，还需要填写具体的结果或说明的情况下应加虚引线，这时应按如下步骤操作。

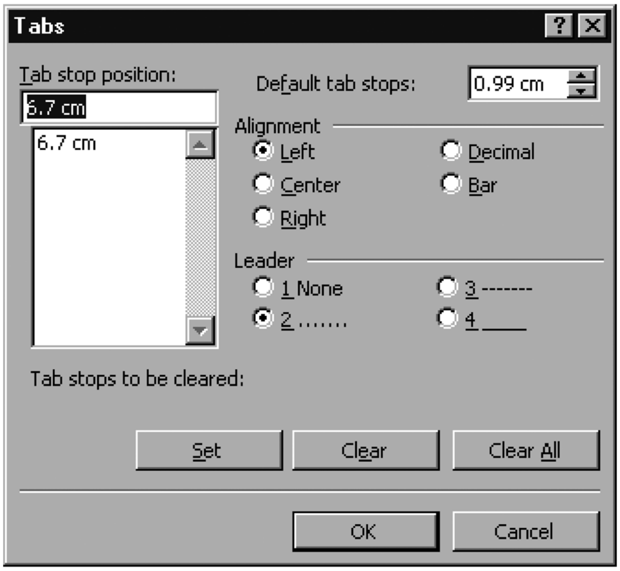
Cl.	Requirement-Test	Result	Verdict
20. 5	Length 10m ....:	12，5	Pass

将光标移动到第二栏（“Requirement-Test”），先选择格式菜单，再选择制表位。

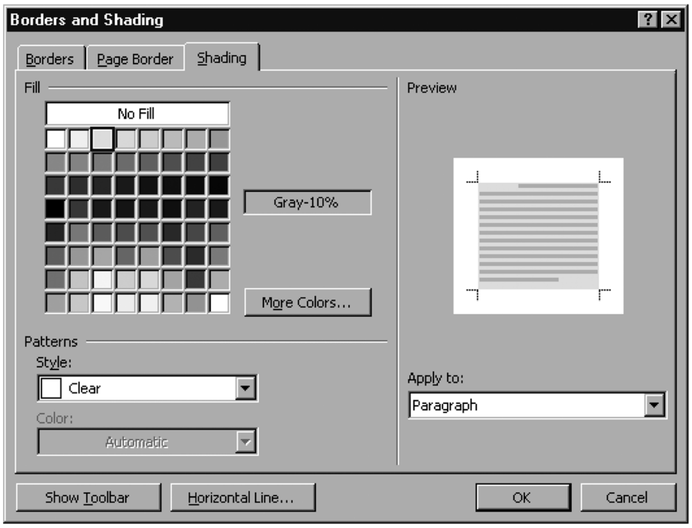
在“默认制表位”中键入 6. 7cm（或选择适合表格的尺寸）。

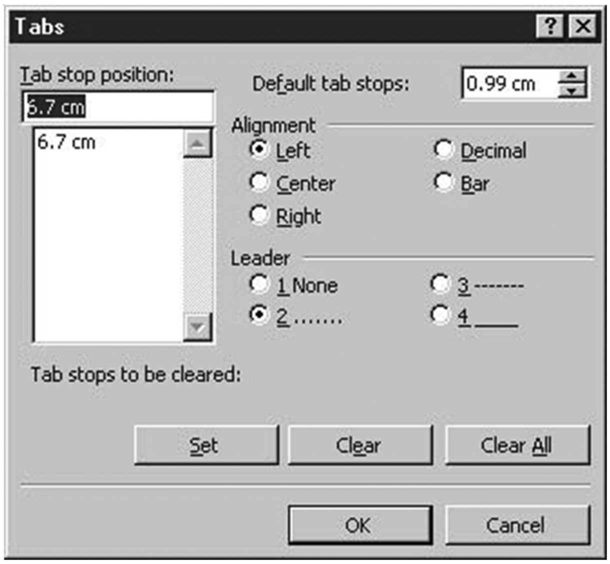
对齐方式设置为“左对齐”。前导符选择 2 号。点击“设置”，再按确定。

在第二栏中，将光标移动到该栏文本的末尾处同时按下“Control”和“Tab”，然后填加符号“：”。

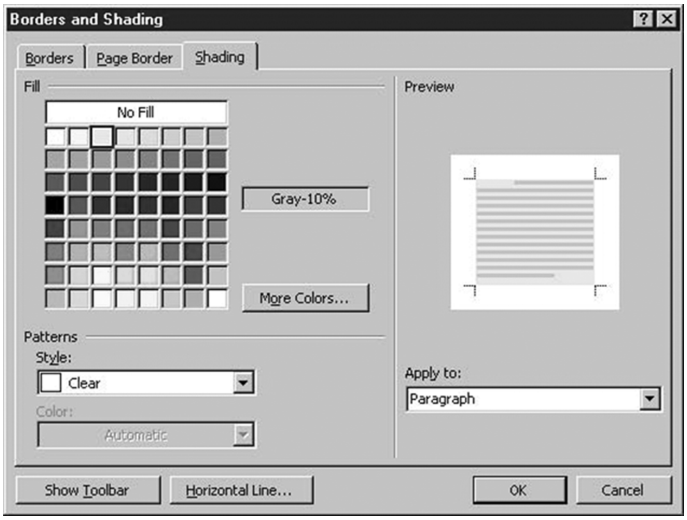


3. In order **to add shading in the cell**, place cursor in that cell; select Format, Borders and Shading. Click on the “Shading” tab and choose the top square for the 12.5% Grey.
You may also select Patterns, Style and 12.5% for the shading. This method appears to work better during the conversion from MS Word 6.0 to higher versions of MS Word (the shading is not lost).





3. 为添加底纹，将光标移动到该区域，选择格式、边框和底纹。选择“底纹”标签，选择顶部的 12.5% 的灰色。也可以选择样式、风格和 12.5% 的灰色。这种方法在应用于 MS Word 6.0 或更高版本时，效果较好（底纹不易丢失）。



ANNEX B
Checklist for TRF Originators

No.	Requirement	Result
1	**Formatting of the TRF**	
1a	Was the latest TRF template used? Was the IECEE Website consulted?	
1b	Are margins set as Top 2 cm, Bottom 2 cm, Left 3 cm, Right 1 cm and paper size set to A4 (210 x 297 mm)?	
1c	Are normal text Arial 10 pt (True Type) font, special characters (e.g. °, β, Ω) and Symbol (True Type) used?	
1d	Is MS Word format "97-2002 + 6.0/95 - RTF" used?	
1e	Is full name of the TRF originator provided?	
1f	Is correct copyright text and current year entered on the first page?	
1g	Does the TR form include no macros, except for the Test Report Ref. Number and the page numbers?	
2	**TRF structure**	
2a	Is the IEC standards number and edition entered correctly?	
2b	Is correct TRF number entered the footer of each TRF section?	
2c	Is correct standard number entered in the header?	
2d	Does the section titled “Test items particulars” provide information about the product, which is necessary to establish the correct test program (such as special features and characteristics of the product)?	
2e	Does the TRF include all required TRF sections?	
2f	Is Component Table placed at the end of the TRF?	
2g	Is section covering National Differences included, when available?	
2h	Are the different test case types properly used in the TRF?	
2i	Are all pages of each section in the Test Report provided with page number and with the total of pages indicated? Is the page numbering macro working properly?	
2j	Is the number of sub-headers in a sequence (sub-headers following each other without any regular test case entries in-between) avoided and kept to minimum?	
3	**Comments and verdicts**	
3a	Is the column titled “Requirement – Test” a summary of the requirement and not a repeated full text of the standard?	
3b	Are indicative rather than imperative phrases used when abbreviating the requirements?	
3c	Are words such as “shall” and “should” avoided in the TRF?	

附录 B

针对 TRF 起草人的检查表

序号	要求	结论
1	**TRF 的格式**	
1a	是否采用了 TRF 的最新模板？是否查询了 IECEE 网站？	
1b	边界是否设置为顶部 2cm、底部 2cm、左边 3cm、右边 1cm，纸张尺寸是否设为 A4（210×297mm）？	
1c	正文是否为 Arial 10 pt（True Type），是否使用了特殊字母（e. g. °，β，Ω）或符号？	
1d	文件格式是否采用了微软 word“97-2002 ＋ 6. 0/95-RTF”？	
1e	是否提供了 TRF 起草人的全称？	
1f	首页是否显示正确的版权文字和当年年份？	
1g	除了测试报告编号和页码外，TRF 里是否未引用宏指令？	
2	**TRF 结构**	
2a	IEC 标准号和版本是否输入正确？	
2b	是否每部分 TRF 底部都加入了正确的 TRF 编号？	
2c	顶部是否加入了正确的标准号？	
2d	是否在“测试项目详情”中提供了产品的相关信息？这些信息对于建立正确的测试程序非常必要（例如产品的特殊功能或特性）？	
2e	TRF 是否包括了所有要求的 TRF 部分？	
2f	是否将零部件表放在了 TRF 的后面？	
2g	适用时，是否包含了国家差异部分？	
2h	TRF 中不同测试类型是否正确使用？	
2i	测试报告的每一部分的所有页里是否都提供了页码并提示总页数？页码宏指令是否正常工作？	
2j	是否尽量减少依次排列子标题（子标题依次排列而无常规测试穿插其间）？	
3	**评论和判定**	
3a	“要求-测试”一栏是否为要求的摘要而不是全部标准内容的重复？	
3b	简写标准要求时是否采用了陈述句而不是祈使句？	
3c	TRF 里面是否避免使用“shall”和“should”？	

3d	Is each requirement in the “Requirement – Test” column worded in such a way that it prompts for a clear “Pass”, “Fail” or “N/A” verdict?	
3e	Are regular test cases requiring a specific result or comment in addition to the verdict indicated by a dotted leader?	
3f	Are shaded verdict field identifying only the auxiliary test cases, which do not require a verdict but only additional information?	
3g	For measured values to be recorded in the tables and the main part of the TRF are units of measurement indicated?	
4	**General**	
4a	Was spelling checked?	
4b	Was correct language set?	
4c	Was the use of simplified distribution procedure (Annex G) considered?	

（续）

3d	在“要求一测试”一栏的每一个要求的措辞是否导致清晰地“通过”、“不合格”或“N/A”的判定？	
3e	除判定外还要求给出具体结果或评价的常规测试是否用虚线标识？	
3f	阴影填充的判定栏是否指示不要求给出判定，只需要附加信息的辅助测试？	
3g	对于记录测量数据的表格和 TRF 主体部分是否标示了测量单位？	
4	**概述**	
4a	是否检查了拼写？	
4b	是否设置了正确的语言？	
4c	是否考虑过采用简化发行程序（附录 G)？	

ANNEX C

Example of a blank Test Report Form and National Differences Form

附录 C
空白测试报告和国家差异报告格式的示例

Test Report issued under the responsibility of:

ANNEX C

TEST REPORT **IEC 60601–2–33** **Medical electrical equipment** **Part 2: Particular requirements for the safety of magnetic resonance equipment for medical diagnosis**	
Report Reference No..................... :	
Date of issue .... :	
Total number of pages .... :	
CB Testing Laboratory.................. :	
Address .... :	
Applicant's name .... :	
Address .... :	
Test specification:	
Standard .... :	IEC 60601-2-33: 2007 (Second Edition) + A 1: 2005 + A 2: 2007 for use with IEC 60601-1:1988 + A1:1991 + A2: 1995
Test procedure .... :	CB Scheme
Non-standard test method…………..:	N/A
Test Report Form No..................... :	IEC60601_2_33F
Test Report Form(s) Originator .... :	Underwriters Laboratories Inc.
Master TRF .... :	Dated 2009-05

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Test item description ....:	
Trade Mark .... :	
Manufacturer .... :	
Model/Type reference .... :	
Ratings .... :	

Test Report issued under the responsibility of:

ANNEX C

TEST REPORT **IEC 60601–2–33** **Medical electrical equipment** **Part 2: Particular requirements for the safety of magnetic resonance equipment for medical diagnosis**	
Report Reference No..................... :	
Date of issue .... :	
Total number of pages .... :	
CB Testing Laboratory.................. :	
Address .... :	
Applicant's name .... :	
Address .... :	
Test specification:	
Standard .... :	IEC 60601-2-33: 2007 (Second Edition) + A 1: 2005 + A 2: 2007 for use with IEC 60601-1:1988 + A1:1991 + A2: 1995
Test procedure .... :	CB Scheme
Non-standard test method…………..:	N/A
Test Report Form No..................... :	IEC60601_2_33F
Test Report Form(s) Originator .... :	Underwriters Laboratories Inc.
Master TRF .... :	Dated 2009-05

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Test item description ....:	
Trade Mark...................................... :	
Manufacturer .... :	
Model/Type reference .... :	
Ratings .... :	

Testing procedure and testing location:
☒ **CB/CCA Testing Laboratory**:
Testing location/ address ....:
☐ **Associated CB Laboratory:**
Testing location/ address ....:
Tested by (name + signature) .....:
Approved by (name + signature) ..:
☒ Testing procedure: TMP
Tested by (name + signature) .....:
Approved by (name + signature) ..:
Testing location/ address ....:
☐ Testing procedure: WMT
Tested by (name + signature) .....:
Witnessed by (name + signature).:
Approved by (name + signature) ..:
Testing location/ address ....:
☐ Testing procedure: SMT
Tested by (name + signature) .....:
Approved by (name + signature) ..:
Supervised by (name + signature):
Testing location/ address .... :
☐ Testing procedure: RMT
Tested by (name + signature) .....:
Approved by (name + signature) ..:
Supervised by (name + signature):
Testing location/ address ....:

__Note 1__: In the example above, the Testing Laboratory marked testing procedure and location as CBTL and TMP. In this case only the signature fields that are relevant for testing at the CBTL and TMP are required.

Testing procedure and testing location:
☒ **CB/CCA Testing Laboratory**: Testing location/ address ....: ☐ **Associated CB Laboratory:** Testing location/ address ....: Tested by (name + signature) .....: Approved by (name + signature) ..:
☒ Testing procedure: TMP Tested by (name + signature) .....: Approved by (name + signature) ..: Testing location/ address ....:
☐ Testing procedure: WMT Tested by (name + signature) .....: Witnessed by (name + signature).: Approved by (name + signature) ..: Testing location/ address ....:
☐ Testing procedure: SMT Tested by (name + signature) .....: Approved by (name + signature) ..: Supervised by (name + signature): Testing location/ address .... :
☐ Testing procedure: RMT Tested by (name + signature) .....: Approved by (name + signature) ..: Supervised by (name + signature): Testing location/ address ....:

注 1：上例中，测试实验室标出的测试过程和地点为 CBTL 和 TMP。在这种情况下，只要求填写与 CBTL 和 TMP 测试相关的签名域。

List of Attachments (including a total number of pages in each attachment):

Summary of testing:	
Tests performed (name of test and test clause):	**Testing location:**

Summary of compliance with National Differences List of countries addressed: ☐ The product fulfils the requirements of _________ (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable).

Copy of marking plate: "The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks"

List of Attachments (including a total number of pages in each attachment):

Summary of testing:	
Tests performed (name of test and test clause):	**Testing location:**

Summary of compliance with National Differences List of countries addressed: ☐ The product fulfils the requirements of _________ (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable).

Copy of marking plate: "The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks"

Test item particulars .... :	
FIRST LEVEL CONTROLLED OPERATING MODE capability :	
SECOND LEVEL CONTROLLED OPERATING MODE capability.. :	
Equipped with superconducting magnets .... :	
Equipped with resistive magnets.............................. :	
Type of gradient system .... : Options included .... : .... :	
Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement.......................:	P (Pass)
- test object does not meet the requirement ....:	F (Fail)
Testing ....:	
Date of receipt of test item...:	
Date (s) of performance of tests ....:	
General remarks: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report, a point (comma) is used as the decimal separator. **This Test Report Form is intended for the investigation of magnetic resonance equipment for medical diagnosis in accordance with IEC 60601-2-33. It can only be used together with IEC 60601-1 Report.** Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per Sub-clause 6.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .... :	Yes/Not applicable
When differences exist; they shall be identified in the General Product Information section.	
Name and address of factory (ies) .... :	
General product information:	

Test item particulars.. :	
FIRST LEVEL CONTROLLED OPERATING MODE capability :	
SECOND LEVEL CONTROLLED OPERATING MODE capability... :	
Equipped with superconducting magnets .... :	
Equipped with resistive magnets.............................. :	
Type of gradient system .... : Options included .... : .... :	
Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement ....:	P (Pass)
- test object does not meet the requirement ....:	F (Fail)
Testing ....:	
Date of receipt of test item ....:	
Date (s) of performance of tests ....:	
General remarks: The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report, a point (comma) is used as the decimal separator. **This Test Report Form is intended for the investigation of magnetic resonance equipment for medical diagnosis in accordance with IEC 60601-2-33. It can only be used together with IEC 60601-1 Report.** Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per Sub-clause 6.2.5 of IECEE 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .... :	Yes/Not applicable
When differences exist; they shall be identified in the General Product Information section.	
Name and address of factory (ies) .... : **General product information:**	

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict

6	**IDENTIFICATION, MARKING AND DOCUMENTS**		
6.8.1	ACCOMPANYING DOCUMENTS provide sufficient information to the USER		
6.8.2	aa) INSTRUCTIONS FOR USE provide recommendations for and indicate the need for a pre-screening program to identify PATIENTS and MR WORKERS at risk	See Attachment #	
	- provide recommendations to adequately safeguard PATIENTS and MR WORKERS from injury taking into consideration risk due to past professional activity which might have caused accidental implantation of ferromagnetic materials for MR WORKER		
	All three specific classes of PATIENTS are mentioned in the INSTRUCTIONS FOR USE		
	bb) INSTRUCTIONS FOR USE provide clear recommendations to the USER to establish a program for the supervision appropriate to the classes of PATIENTS described in 6.8.2 aa) and to the controlled mass of operation of the MR EQUIPMENT		
Note: Remaining sub-clauses from Clause 6 were removed to save space in this OD.			

26	**VIBRATION AND NOISE**		
	The MR EQUIPMENT does not produce noise having an unweighted peak sound pressure level (L_p) higher than 140 dB referenced to 20 μPa in any accessible area...:	See appended Table 26	

36	**ELECTROMAGNETIC COMPATIBILITY**		
	Outside the CONTROLLED ACCESS AREA the magnetic stray field is smaller than 0.5 mT and the electromagnetic interference level complies with Collateral Standard IEC 60601-1-2		
	Inside the CONTROLLED ACCESS AREA the requirements as stated in 6.8.2 ee) were applicable		

45	**PRESSURE VESSELS AND PARTS SUBJECT TO PRESSURE**		
45.101	The helium vessel is designed as a pressure vessel and was tested in compliance with clause 45 of IEC 60601-1, or with national regulations.................:		

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict

6	IDENTIFICATION, MARKING AND DOCUMENTS		
6.8.1	ACCOMPANYING DOCUMENTS provide sufficient information to the USER		
6.8.2	aa) INSTRUCTIONS FOR USE provide recommendations for and indicate the need for a pre-screening program to identify PATIENTS and MR WORKERS at risk	See Attachment #	
	- provide recommendations to adequately safeguard PATIENTS and MR WORKERS from injury taking into consideration risk due to past professional activity which might have caused accidental implantation of ferromagnetic materials for MR WORKER		
	All three specific classes of PATIENTS are mentioned in the INSTRUCTIONS FOR USE		
	bb) INSTRUCTIONS FOR USE provide clear recommendations to the USER to establish a program for the supervision appropriate to the classes of PATIENTS described in 6.8.2 aa) and to the controlled mass of operation of the MR EQUIPMENT		
Note: Remaining sub-clauses from Clause 6 were removed to save space in this OD.			

26	VIBRATION AND NOISE		
	The MR EQUIPMENT does not produce noise having an unweighted peak sound pressure level (L_p) higher than 140 dB referenced to 20 μPa in any accessible area.. :	See appended Table 26	

36	ELECTROMAGNETIC COMPATIBILITY		
	Outside the CONTROLLED ACCESS AREA the magnetic stray field is smaller than 0.5 mT and the electromagnetic interference level complies with Collateral Standard IEC 60601-1-2		
	Inside the CONTROLLED ACCESS AREA the requirements as stated in 6.8.2 ee) were applicable		

45	PRESSURE VESSELS AND PARTS SUBJECT TO PRESSURE		
45.101	The helium vessel is designed as a pressure vessel and was tested in compliance with clause 45 of IEC 60601-1, or with national regulations................. :		

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict
49	**INTERRUPTION OF THE POWER SUPPLY**		
49.101	The MR EQUIPMENT comprises a superconducting magnet or resistive magnet and is provided with an EMERGENCY SHUT DOWN UNIT		
49.102	The equipment is provided with a facility to allow the OPERATOR to immediately stop a scan by interrupting the power to the gradient system and that to the RF transmit coil as required		
51	**PROTECTION AGAINST HAZARDOUS OUTPUT**		
51.101	Operating modes		
51.101.1	The MR EQUIPMENT complies with the requirements in sub-clauses from a) to c):		
	a) Means are provided in order to ensure, that the limit(s) of the selected operating mode cannot be exceeded. This control is independent of OPERATOR input or is checked by the MR EQUIPMENT in order to detect any OPERATOR input error		
	b) A reset to the NORMAL OPERATING MODE with respect to SAR and d*B*/d*t* is performed automatically with change of the PATIENT		
	c) The MR EQUIPMENT provides information upon request about the relevant SAR and relevant GRADIENT OUTPUT ....:		
Note: Remaining sub-clauses from Clause 51 were removed to save space in this OD.			
52	**ABNORMAL OPERATION AND FAULT CONDITIONS**		
52.1	Safety of the MR EQUIPMENT was assessed against the requirements of clause 52 in the Collateral Standard IEC 60601-1-4		
	All relevant information regarding residual risk is included in the INSTRUCTIONS FOR USE		
	Means are provided to secure the software and firmware control programs against unauthorised access or modification		
59	**CONSTRUCTION AND LAYOUT**		
59.101	MR equipment equipped with a superconducting magnet, has means to monitor the cryogen level(s)		

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict

49	**INTERRUPTION OF THE POWER SUPPLY**		
49.101	The MR EQUIPMENT comprises a superconducting magnet or resistive magnet and is provided with an EMERGENCY SHUT DOWN UNIT		
49.102	The equipment is provided with a facility to allow the OPERATOR to immediately stop a scan by interrupting the power to the gradient system and that to the RF transmit coil as required		

51	**PROTECTION AGAINST HAZARDOUS OUTPUT**		
51.101	Operating modes		
51.101.1	The MR EQUIPMENT complies with the requirements in sub-clauses from a) to c):		
	a) Means are provided in order to ensure, that the limit(s) of the selected operating mode cannot be exceeded. This control is independent of OPERATOR input or is checked by the MR EQUIPMENT in order to detect any OPERATOR input error		
	b) A reset to the NORMAL OPERATING MODE with respect to SAR and d*B*/d*t* is performed automatically with change of the PATIENT		
	c) The MR EQUIPMENT provides information upon request about the relevant SAR and relevant GRADIENT OUTPUT ....:		
Note: Remaining sub-clauses from Clause 51 were removed to save space in this OD.			

52	**ABNORMAL OPERATION AND FAULT CONDITIONS**		
52.1	Safety of the MR EQUIPMENT was assessed against the requirements of clause 52 in the Collateral Standard IEC 60601-1-4		
	All relevant information regarding residual risk is included in the INSTRUCTIONS FOR USE		
	Means are provided to secure the software and firmware control programs against unauthorised access or modification		

59	**CONSTRUCTION AND LAYOUT**		
59.101	MR equipment equipped with a superconducting magnet, has means to monitor the cryogen level(s)		

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict

26	TABLE: measurements of acoustic noise		
Location of the microphone .... :			
MR EQUIPMET mode producing the worst case situation acoustically...... :			

Accessible area	Measured unweighted peak sound pressure level L_p (dB)	Measure A-weighted r.m.s. sound pressure level $L_{Aeq,\,1\,h}$ (dB)	Remarks

Supplementary information:

51.105.2	TABLE: measurements of maximum GRADIENT OUTPUT for PATIENT		
Dimensions of the compliance volume (m)…………………………..:			
Coordinates the compliance volume boundaries (m)……………...:			
MAXIMUM GRADIENT SLEW RATE per GRADIENT UNIT (mT/m/ms)……:			
SEARCH COIL sensitivity factor S………………………………………:			

GRADIENT UNIT	Max. GRADIENT strength $G_{+,max}$ (mT/m)	Max. GRADIENT strength $G_{-,max}$ (mT/m)	Ramp time (ms)	Coordinates of location (m)	Peak value V_{out} of SEARCH COIL voltage (V)	GRADIENT OUTPUT d*B*/d*t* (T/s)	Remarks

Supplementary information:

TRF No.: IEC60601_2_33F

Note 2: This is an example and only selected pages from the TRF were copied.

IEC 60601-2-33			
Clause	Requirement + Test	Result - Remark	Verdict

26	**TABLE: measurements of acoustic noise**		
Location of the microphone .... :			
MR EQUIPMET mode producing the worst case situation acoustically...... :			
Accessible area	Measured unweighted peak sound pressure level L_p (dB)	Measure A-weighted r.m.s. sound pressure level $L_{Aeq, 1 h}$ (dB)	Remarks
Supplementary information:			

51.105.2	**TABLE: measurements of maximum** GRADIENT OUTPUT **for** PATIENT						
Dimensions of the compliance volume (m)…………………………..:							
Coordinates the compliance volume boundaries (m)……………...:							
MAXIMUM GRADIENT SLEW RATE per GRADIENT UNIT (mT/m/ms)……:							
SEARCH COIL sensitivity factor S……………………………………..:							
GRADIENT UNIT	Max. GRADIENT strength $G_{+,max}$ (mT/m)	Max. GRADIENT strength $G_{-,max}$ (mT/m)	Ramp time (ms)	Coordinates of location (m)	Peak value V_{out} of SEARCH COIL voltage (V)	GRADIENT OUTPUT d*B*/d*t* (T/s)	Remarks
Supplementary information:							

注 2：这是一个示例，只复制了部分从 TRF 中选择的页面。

ATTACHMENT No. _____ Page 1 of 1 Report No. ___

List of test equipment used at the TMP Laboratory

Clause	Measurement / testing	Testing / measuring equipment / material used (Equipment ID)	Range used	Last Calibration date	Calibration due date

Note 3: The TMP procedure was used and the list of test equipment is required.

Test Report issued under the responsibility of：

ATTACHMENT No. _____ Page 1 of 1 Report No. ___

List of test equipment used at the TMP Laboratory

Clause	**Measurement / testing**	**Testing / measuring equipment / material used (Equipment ID)**	**Range used**	**Last Calibration date**	**Calibration due date**

注 3：采用了 TMP 程序，要求列出测试设备清单。

Test Report issued under the responsibility of:

IEC60601_2_22C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-2-22 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Medical electrical equipment, diagnostic and therapeutic laser equipment)	
Differences according to.............. :	IEC 60601-2-22: 2007 (Third Edition) for use in conjunction with IEC 60601-1: 2005 (Third Edition)
Attachment Form No.................... :	**EU_GD_IEC60601_2_22C**
Attachment Originator .... :	Name of originator
Master Attachment........................ :	date
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	CENELEC COMMON MODIFICATIONS (EN 60601-2-22)		

ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN 60601-2-22)**		

ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN 60601-2-22)**		

Note 4: This is an example only, not an actual TRF for National Differences.

IEC60601_2_22C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-2-22 **EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES** (Medical electrical equipment, diagnostic and therapeutic laser equipment)
Differences according to............... : IEC 60601-2-22: 2007 (Third Edition) for use in conjunction with IEC 60601-1: 2005 (Third Edition)
Attachment Form No...................... : **EU_GD_IEC60601_2_22C** **Attachment Originator ....** : Name of originator **Master Attachment**......................... : date
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	CENELEC COMMON MODIFICATIONS (EN 60601-2-22)		

ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN 60601-2-22)**		

ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN 60601-2-22)**		

注 4：这仅是一个示例，不是正式的国家差异 TRF。

IEC60601_2_22C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-2-22
US NATIONAL DIFFERENCES
Medical electrical equipment
Part 22: Particular requirements for safety of diagnostic and therapeutic laser equipment

Differences according to............... : IEC 60601-2-22

Attachment Form No..................... : **US_ND _IEC60601_2_22C**

Attachment Originator .... : Name of originator

Master Attachment........................ : date

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National	**Differences**		

	Special national conditions (if any)		

Note 5: This is an example only, not an actual TRF for National Differences.

Test Report issued under the responsibility of：

Page 1 of x Report No.:

IEC60601_2_22C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60601-2-22 US NATIONAL DIFFERENCES Medical electrical equipment Part 22: Particular requirements for safety of diagnostic and therapeutic laser equipment	
Differences according to............... :	IEC 60601-2-22
Attachment Form No..................... :	**US_ND _IEC60601_2_22C**
Attachment Originator .... :	Name of originator
Master Attachment........................ :	date
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National	**Differences**		

	Special national conditions (if any)		

注 5：这仅是一个示例，不是真正的国家差异 TRF。

ANNEX D

Example of a TRF page in landscape orientation

附录 D
TRF 中采用横向布局页的示例

IEC 60xxx-2-1			
Clause	Requirement - Test	Result - Remark	Verdict

10A	**TABLE: flammability test for classifying materials 5V**						
Sample	test bars			test plaques			
No./ref.	thickness (mm)	flaming time (s)	burning distance (mm)	thickness (mm)	position	flaming & glowing time (s)	burning distance (mm)
Supplementary information:							

Note: This is an example only, not an actual TRF.

IEC 60xxx-2-1			
Clause	Requirement - Test	Result - Remark	Verdict

10A	**TABLE: flammability test for classifying materials 5V**						
Sample	test bars			test plaques			
No./ref.	thickness (mm)	flaming time (s)	burning distance (mm)	thickness (mm)	position	flaming & glowing time (s)	burning distance (mm)
Supplementary information:							

TRF No.: IEC60xxxA
注：这仅是一个示例，不是真正的 TRF。

ANNEX E

Instructions on how to complete Test Report pages

ANNEX E comprise the following subsections:

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List of attachments	440
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Test items particulars	440
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Testing dates	442
General remarks	442
Manufacturer's Declaration	442
Name and address of factory(ies)	442
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National Differences	456
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List of test equipment used	460

附录 E
填写测试报告页的说明

附录 E 包含下列内容：

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TRF 封面	435
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铭牌的复印件	441
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TRF Cover Page

Note1: Cover page example based on TRF for IEC 60601-1-6

IEC 60601 - 1- 6

Medical electrical equipment

Part 1-6: General requirements for safety - Collateral Standard: Usability

Report Reference No:	Type Test Report reference number
Date of issue:	Type Test Report issue date
Total number of pages:	Macro or type number of pages
CB Testing Laboratory:	Type name of responsible Testing Laboratory
Address:	Type address of Testing Laboratory
Applicant's name:	Type name of Applicant
Address:	Type Applicant's address

Test specification: **Do not modify standard(s) identified by the TRF Originator**

Make sure to select the TRF corresponding to the edition of the standard (including Amendments) that was used for the investigation of the product.

Standard : **IEC 60601 1-6: 2006, Second Edition**

Test procedure : **CB Scheme**

(Remove reference to the CB Scheme if not issuing a CB Test Certificate according to IECEE 02).

Non-standard test method: **N/A**

Describe any non-standard test methods used or type N/A.

Note 2: When it is necessary to use methods not covered by standard methods, these shall be documented according to ISO/IEC 17025:2005, Clause 5.4.4..

Test Report Form No. :	**IEC60601_1_6B** (Not to be modified)
Test Report Form Originator :	Not to be modified
Master TRF :	**Dated 2008-01** (Not to be modified)

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附录 E
TRF 封面

注 1：基于 IEC 60601-1-6 的 TRF 封面示例。

IEC 60601-1-6
医用电气设备
第 1-6 部分：安全通用要求-并列标准：可用性

报告编号：　　输入测试报告编号
发放日期：　　输入测试报告发放日期
总页数：　　宏指令或输入总页数
CB 测试实验室：　　输入负责测试实验室的名称
地址：　　输入测试实验室的地址
申请人名称：　　输入申请人名称
地址：　　输入申请人地址
测试规范：　　不要修改 TRF 起草人标识的标准
确保选择与用来评估产品的标准（包括补充件）版本相对应的 TRF。
标准：　　IEC 60601 1－6：2006，第二版

测试程序：　　CB 体系
（根据 IECEE 02，如果不出示 CB 测试证书，则去掉 CB 体系的引用）

非标准测试方法　　N/A
描述非标准测试方法或输入 N/A。

注 2：当有必要采用标准方法以外的方法时，应根据 ISO/IEC 17025：2005，5.4.4 条对该项进行记录。

测试报告格式号：　　IEC60601 _ 1 _ 6B（不能更改）

测试报告格式起草人：　　不能更改

TRF 母版：　　Dated 2008-01（不能更改）

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除非由授权 CB 测试实验室签字，并附上由 NCB 根据 IECEE 02 颁发的 CB 测试证书，否则该报告不能作为 CB 测试报告。

Note 3: The copyright text and additional information is a standard text and shall not be modified or removed from the TRF.)

Test item description	: Describe the product (computer, modem, hand-held lamp, electric oven, ...)
Trademark	: Describe or paste a copy of the trademark used
Manufacturer	: Type name and address of the manufacturer (See IECEE 02, Clause 3.7)
Model/type reference	: Type, model, type reference as it appears on the marking plate
Rating(s)	: Provide rating values corresponding to the ratings on which the testing has been based and as identified on the marking plate.

附录 E

注 3：受版权保护的文字和附加信息是标准格式，不能从 TRF 中更改或删除。

测试项目描述：	产品描述（计算机、调制解调器、手提式灯具、电烤箱等）
商标：	描述或者粘贴产品所使用的商标的复印件
制造商：	制造商名称及地址 （见 IECEE 02，条款 3.7）
类型/型号：	铭牌上标明的类型、型号
额定值：	铭牌上标明的且作为测试依据的额定值

Testing procedure and testing location:

Select applicable program and identify testing location.

CB Testing Laboratory	:	Type name of the Main Testing Laboratory
Testing location/ address	:	Type address of the Main Testing Laboratory

Associated Laboratory	:	Type name of ACB Testing Laboratory	
Testing location/ address	:	Type address of Associated Laboratory	
Tested by (name + signature)	:	Type name	Sign here
Approved by (name + signature)	:	Type name	Sign here

Note 4: An Associated CB Testing Laboratory is a testing facility that has a limited testing capability within its recognized scope of specific Product Categories or standards, and may need to rely upon the Main CBTL, with which it is associated, to handle tests outside its limited capabilities. A qualified staff of the Main CBTL is responsible for carrying out a review of test reports and/or partial test reports prepared by the Associated CB Testing Laboratory for which it is responsible. See OD–CB2015, Clauses 2.2 and 3.2.

When TPM Procedure used:

Testing procedure: TMP	:	Type name of TMP Laboratory	
Tested by (name + signature)	:	Type name (CBTL)	*Sign here*
Approved by (name + signature)	:	Type name (CBTL or NCB)	*Sign here*
Testing location/ address	:	Type address of TMP Laboratory	

When WMT Procedure used:

Testing procedure: WMT	:	Type name of WMT Laboratory	
Tested by (name + signature)	:	Type name (WMT)	*Sign here*
Witnessed by (name + signature)	:	Type name (CBTL or NCB)	*Sign here*
Approved by (name + signature)	:	Type name (CBTL or NCB)	*Sign here*
Testing location/ address	:	Type address of WMT Laboratory	

When SMT Procedure used:

Testing procedure: SMT	:	Type name of SMT Laboratory	
Tested by (name + signature)	:	Type name (SMT)	*Sign here*
Approved by (name + signature)	:	Type name (SMT)	*Sign here*
Supervised by (name + signature)	:	Type name (CBTL or NCB)	*Sign here*
Testing location/ address	:	Type address of SMT Laboratory	

When RMT Procedure used:

Testing procedure: RMT	:	Type name of RMT Laboratory	
Tested by (name + signature)	:	Type name (RMT)	*Sign here*
Approved by (name + signature)	:	Type name (RMT)	*Sign here*
Supervised by (name + signature)		Type name (NCB)	*Sign here*
Testing location/ address	:	Type address of RMT Laboratory	

Note 5: All blank Test Report Forms contain all programs and signature fields for:
(1) "Tested by"; (2) ": Supervised by"; (3) "Witnessed by"; and (4) "Approved by" as required by the CB Operational Documents (OD-CB2027, OD-CB2028, OD-CB2029, OD-CB2030, OD-CB2031).

测试程序和测试地点

选择可用的程序，标示测试地点。

CB 测试实验室	:	打印主测试实验室的名称
测试地点/地址	:	打印主测试实验室的地址
关联实验室	:	打印关联 CB 测试实验室的名称
测试地点/地址	:	打印关联测试实验室的地址
测试（姓名＋签名）	:	打印名字　　签名
批准（姓名＋签名）	:	打印名字　　签名

注 4：关联 CB 测试实验室是指在其被接受的特定产品或标准范围内具有有限测试能力的测试机构。需要依靠主 CBTL，通过与他们合作，完成有限测试能力以外的测试。主 CBTL 负责对由关联 CB 测试实验室在其负责范围内完成并提供的测试报告和/或部分测试报告进行复核。见 OD－CB2015，条款 2.2 和 3.2。

当采用 TMP 程序时：

测试程序 TMP	:	打印 TMP 实验室名称	
测试（姓名＋签名）	:	打印名字（CBTL）	签名
批准（姓名＋签名）	:	打印名字（CBTL 或 NCB）	签名
测试地点/地址	:	打印 TMP 实验室地址	

当采用 WMT 程序时：

测试程序 WMT	:	打印 WMT 实验室名称	
测试（姓名＋签名）	:	打印名字（WMT）	签名
目击（姓名＋签名）	:	打印名字（CBTL 或 NCB）	签名
批准（姓名＋签名）	:	打印名字（CBTL 或 NCB）	签名
测试地点/地址	:	打印 WMT 实验室地址	

当采用 SMT 程序时：

测试程序 SMT	:	打印 SMT 实验室名称	
测试（姓名＋签名）	:	打印名字（SMT）	签名
批准（姓名＋签名）	:	打印名字（SMT）	签名
监督（姓名＋签名）	:	打印名字（CBTL 或 NCB）	签名
测试地点/地址	:	打印 SMT 实验室地址	

当采用 RMT 程序时：

测试程序 RMT	:	打印 RMT 实验室名称	
测试（姓名＋签名）	:	打印名字（RMT）	签名
批准（姓名＋签名）	:	打印名字（RMT）	签名
监督（姓名＋签名）	:	打印名字（NCB）	签名
测试地点/地址	:	打印 RMT 实验室地址	

注 5：所有空白的测试报告格式包含所有程序和签名区域：
如 CB 操作文件（OD－CB2027，OD－CB2028，OD－CB2029，OD－CB2030，OD－CB2031）规定的（1）测试、（2）监督、（3）目击、（4）批准。

List of attachments:

The list below includes typical examples of attachments:

a) Photo (x pages) - required

b) National Differences (xx pages) – when applicable

c) List of test equipment (xx pages) – required when TMP or WMT programs are used

d) Other attachments as needed

List of Attachments shall include a total number of pages in each attachment.

Summary of testing:

Provide list of tests performed (name of the test and test clause number), as applicable.
Provide information on testing location.
The “Summary of testing” field shall contain the list of all tests conducted by the CBTL or MTL according to the testing program agreed with the responsible NCB.

The reason why any of the normally applicable tests were not conducted shall be explained in the “General product information” field.
It is important to clarify the differences between models covered by the Report when testing a family (series) of products.

Summary of compliance with National Differences:

Provide list of countries, for which compliance with National Differences has been verified. Include any additional relevant information in the National Differences TRF included in the CB Test Report.

Copy of marking plate:

Include a copy of the marking plate showing model designation, rating, manufacturer, and other information, as appropriate and/or required by the standard.

If the marking plate artwork contains certification marks, the use of these certification marks on the actual product must be authorized by the respective NCBs. The following statement shall be included in the “Copy of marking plate” field of the Test Report:

> “The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks”

Test items particulars:

Provide information about the product needed to establish a correct test program, such as product mobility, type of power connections, and similar.
Select information applicable to the product, add values provided in technical documentation.

Example:

Test item particulars .... :	
Classification of installation and use .... :	See IEC 60601-1 Test Report
Mode of operation .... :	Intermediate
Surface temperature of APPLIED PART .... :	40°C

附件列表

下面的列表包括附件的典型示例：

a）照片（x 页）-要求；

b）国家差异（xx 页）-适用时；

c）测试设备列表（xx 页）-当采用 TMP 或 WMT 程序时要求；

d）其他需要的附件。

在每个附件中附件列表应包括总页数。

测试摘要：

适用时，提供测试项目的列表（测试名称和条款号）。提供测试地点的信息。“测试摘要”栏应包含所有 CBTL 或 MTL 根据 NCB 认可的测试安排而进行的测试项目。

如果没有进行，通常情况下需要进行的测试，必须写明原因。以上信息必须在“产品基本信息”栏中写明。

针对系列产品进行测试时，尤其重要的是阐明报告覆盖的型号之间的差异。

国家差异符合性摘要：

提供已确认国家差异符合性的国家列表，包括 CB 测试报告的国家差异 TRF 中的任何其他的有关信息。

铭牌的复印件：

铭牌的复印件中应显示设计型号、额定值、生产厂家和其他适用的和/或标准要求的。

如果信息铭牌的图案中包含认证标志，那么这些认证标志在实际产品上的使用必须得到相应 NCB 的授权。在测试报告的“铭牌的复印件”一栏中应包括下列声明：

“下面的图案可能只是一个草稿。在产品上使用认证标志必须得到拥有该标志的相应 NCB 的授权。”

测试项目详情：

提供产品的相关信息，从而可以建立正确的测试程序，如产品的移动性、电源连接类型以及其他类似的内容。选择对于产品适用的信息，并加入技术文件中提供的值。

例如：

测试项目详情……：
安装和使用的分类……：见 IEC 60601-1 测试报告 操作的方式……：中间 应用部分的表面温度……：40 ℃

Possible test case verdicts:

Test case does not apply to the test object:	**N/A**
Test item does meet the requirement:	**Pass (P)**
Test item does not meet the requirement:	**Fail (F)**

Note 6: The verdict may be spelled out (Pass, Fail) or abbreviated (P, F).

Testing dates:

Date of receipt of test item	:	Complete as appropriate (YYYY-MM-DD)
Date(s) of performance of test	:	Complete as appropriate and when required by the test procedure used.

Note 7: Date(s) of performance of test may be a time frame from–to or the last day of testing.

General remarks:

The text below shall not be modified, except as noted.

The test results presented in this report relate only to the item(s) tested.
This report shall not be reproduced except in full without the written approval of the testing laboratory.

Clause numbers between brackets refer to clauses in EN 60598-1 (optional remark for EN standards).
"(see remark #)" refers to a remark appended to the report.
"(see Annex #)" refers to an annex appended to the report.
"(see appended table)" refers to a table in the Test Report.

When using a comma or point as the decimal separator in data entered in the Test Report, select as appropriate:

Throughout this report a ☐ comma / ☐ point is used as the decimal separator.

Manufacturer's Declaration (per Sub-clause 6.2.5 of IECEE 02):

When the application for obtaining a CB Test Certificate includes more than one factory location, the Applicant shall include a declaration from the Manufacturer(s) stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory (Sub-clause 6.2.5, IECEE 02).

Name and address of factory(ies):

The CB Test Report shall include the name and address of each factory.

可能的测试判定：

对于测试产品不适用：**N/A**；

测试项目符合要求：**Pass（P）**；

测试项目不符合要求：**Fail（F）**。

注 6：可以拼写判定（Pass，Fail）或缩写（P，F）。

测试日期：

接收测试样品的日期：　按（YYYY-MM-DD）格式填写

进行测试的日期：　当所用的测试程序中要求时填写

注 7：进行测试的日期可以采用“从－至”格式或填写测试的最后日期。

一般备注：

下列内容不应被修改，除非有特殊的注释。

此报告的测试结果仅针对所测试的产品。

本报告未经测试实验室的书面许可，不可复制（全文复制例外）。

括号中的章节编号为 EN 60598-1 中的章节（针对 EN 标准的选择标注）。“（see remark ＃）”指的是报告所附的备注。“（see Annex ＃）”指的是报告的附录。“（see appended table）”指测试报告中的表格。

当在测试报告中采用逗号或者句点作为数据的小数分隔符号时，做出适当选择：

在整篇报告中，□逗号/□句点，被用做小数分隔符号。

制造商的声明（根据 IECEE 02 6.2.5 条款）：

当获得 CB 测试认证的申请中包含多个生产厂地址时，申请人应提供制造商的声明，表明其提交用于评估的样品对于每个生产厂的产品而言都具有代表性。

生产厂的名称和地址：

CB 测试报告应包括每个生产厂的名称和地址。

General product information:

(Optional)

Provide product information, intended use, explanation of the test program, model differences, and similar information, as needed.

Provide the rationale for selection of samples for testing, when applicable.

Note 8: It is not necessary to explain sample selection, when sample selection is already addressed by the standard.

Additional examples of information that may be included in this field:

1. The reason why any of the applicable tests were not conducted shall be explained.

2. Definition of variables used in the type/model designation

For new Test Reports the following may be useful:

Detailed product information;
Type of product;
Intended user (if prior training is necessary);
Intended operating environment (if different from normal/typical as defined by the standard);
Readiness for use (end product, sub-assembly or component);
Accessories;
Modules and interconnection (if equipment under test is of a modular design);
Other aspects as highlighted by the corresponding standard.

For modifications to the existing Test Reports the following may be useful:

Clear explanation of the nature of such modifications as required by clause 5.2;
Identification of product changes, preferably in comparison to the original model tested.

产品基本信息：

（可选）

提供产品信息、预定用途、测试程序举例、型号差异和需要的其他信息。

适用时，提供选择测试样品的理由。

注 8：如果标准中已经说明如何选择样品，则无需解释样品选择。

此处可能包含的其他信息举例：

1 提供适用的测试项目没有进行的原因。

2 产品类型/型号中所用变量的定义。

下列信息对于新的测试报告是有用的：

详细的产品信息、产品类型、预期用户（是否需要事先培训）、预期操作环境（如果与标准中提到的常见/典型情况不同）、使用准备度（整机、组件或零部件）、附件、模块和连接（如果待测设备为模块设计）、相关标准强调的其他方面。

下列信息对于已有测试报告的变更是有用的：

按条款 5.2 的要求，清晰地解释这种变更的本质，标识产品的变化，特别是与原测试型号的比较。

Different test cases and clause types require different type of input:

Types of Clause in a TRF:

Heading:

Cl.	Requirement - Test	Result	Verdict
30.	CONSTRUCTION		**Verdict optional**

Verdict recommended but can be omitted when all verdicts in related sub-clauses are provided.

Sub-heading:

Cl.	Requirement - Test	Result	Verdict
10.5	Markings for Class II appliances:		**Verdict required**

Test case types:

Regular test cases

Cl.	Requirement - Test	Result	Verdict
21.1.1	Marking on main part	**Result/comment optional**	**Verdict required**

When regular test case requires a specific result or comment in addition to the verdict, it is indicated by a dotted leader as in the example below. In this case both, the comment (or measured value) and verdict are required.

Cl.	Requirement - Test	Result	Verdict
20.5	**Length ≥ 10 m....................................... :**	**Result/comment required**	**Verdict required**

A shaded verdict field identifies Auxiliary test case, not requiring a verdict but additional information only. In this case the verdict is not needed only the result shall be provided.

Cl.	Requirement - Test	Result	Verdict
3.2.1	**Test temperature (°C) .... :**	**Result/comment required**	—

Note 9: Example of completed clauses from the TRF for IEC 60950-1

不同的测试案例和条款类型需要不同类型的输入。

TRF 中的条款类型：

标题：

Cl.	Requirement－Test	Result	Verdict
30.	CONSTRUCTION		判定可选

推荐使用判定项，但在每个相关分条款都提供判定的情况下，可以省略。

分标题：

Cl.	Requirement－Test	Result	Verdict
10.5	Markings for Class II appliances：		要求判定

测试情况类型：

常规测试情况：

Cl.	Requirement－Test	Result	Verdict
21.1.1	Marking on main part	结果/评价可选	要求判定

当常规测试项目要有一个具体的结论或对结论进行注释时，应采用如下所示的虚线，在这种情况下，评价（或者测试值）以及判定都要求填写。

Cl.	Requirement－Test	Result	Verdict
20.5	Length 10m……………………：	要求填写结果/评价	要求判定

采用阴影填充表示是辅助测试的情况，因而无需判定，只需要提供附加信息即可。在此情况下不需要判定，但应填写测试结果。

Cl.	Requirement－Test	Result	Verdict
3.2.1	Test temperature（℃）……………………：	要求填写结果/评价	

注 9：IEC 60950－1 中已完成的 TRF 章节示例。

4	PHYSICAL REQUIREMENTS		
4.1	Stability		Pass
	Angle of 10°	Test sample did not fall over	Pass
	Test: force (N)... :	200 N	Pass

4.6	Openings in enclosures		Pass
4.6.1	Top and side openings		Pass
	Dimensions (mm) .... :	Openings do not exceed 3 mm in any dimension	—
4.6.2	Bottoms of fire enclosures		Pass
	Construction of the bottom................................ :	Openings in the bottom are protected by a screen	—
4.6.3	Doors or covers in fire enclosures	The door is interlocked	Pass
4.6.4	Openings in transportable equipment		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C)/time (weeks) ...... :	N/A	—

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		
5.1	Touch current and protective conductor current		Pass
5.1.1	General		Pass
5.1.2	Equipment under test (EUT)		Pass
5.1.3	Test circuit		Pass
5.1.4	Application of measuring instrument		Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements		Pass
	Test voltage (V) ....:	1500 V	—
	Measured touch current (mA) ....:	0.3 mA	—
	Max. allowed touch current (mA) ....:	3.5 mA	—
	Measured protective conductor current (mA) ....:	20 mA	—
	Max. allowed protective conductor current (mA) :	N/A	—

4	PHYSICAL REQUIREMENTS		
4. 1	Stability		Pass
	Angle of 10	Test sample did not fall over	Pass
	Test：force (N) ……：	200 N	Pass

4. 6	Openings in enclosures		Pass
4. 6. 1	Top and side openings		Pass
	Dimensions (mm) ……：	Openings do not exceed 3 mm in any dimension	
4. 6. 2	Bottoms of fire enclosures		Pass
	Construction of the bottom……：	Openings in the bottom are protected by a screen	
4. 6. 3	Doors or covers in fire enclosures	The door is interlocked	Pass
4. 6. 4	Openings in transportable equipment		N/A
4. 6. 5	Adhesives for constructional purposes		N/A
	Conditioning temperature (℃) /time (weeks) ……：	N/A	

5	ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS		
5. 1	Touch current and protective conductor current		Pass
5. 1. 1	General		Pass
5. 1. 2	Equipment under test (EUT)		Pass
5. 1. 3	Test circuit		Pass
5. 1. 4	Application of measuring instrument		Pass
5. 1. 5	Test procedure		Pass
5. 1. 6	Test measurements		Pass
	Test voltage (V) ……：	1500 V	—
	Measured touch current (mA) ……：	0. 3mA	—
	Max. allowed touch current (mA) ……：	3. 5mA	—
	Measured protective conductor current (mA) ……：	20mA	—
	Max. allowed protective conductor current (mA)：	N/A	—

Component information:

Note 10: Example of completed Critical Component table

	TABLE: Critical components information				Pass
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity[1)]
AC Inlet	Makao Enterprise Ltd.	MA-224	250 V ac, 2.5 A	IEC 60320-1	VDE UL Recognized
Fuse (F1)	Fusecom Co.	F-240S	T2A, 250 V	IEC 60127-1 IEC 60127-3	VDE UL Recognized
Fuse Holder	Fusehod Co.	F-240SAP	10 A, 250 V	IEC 60127-6	CSA UL Recognized
- Description	Secured through the double “D” shaped hole in the enclosure by a lock washer and a nut				
Enclosure	GE Plastics	Designated SE1	V-1, 105ºC, 2.5 mm thick	UL 94	UL
X-Capacitor (CX3)	Darin Co. Ltd	MPX2	0.33µF, 275V, 100ºC	IEC 60384-14	VDE
Line Filter (LF1)	Wells Industry Ltd	HNN-B1	300 V, 130ºC	-	-
Triple insulation wire used in LF1	Furukawa Co.	TEX-E2	130ºC See license attached	IEC 60950-1	VDE UL
Transformer T1	Wells Industry Ltd	HNN-2	300 V, 130ºC	IEC 60950-1	TUV Rh
Bobbin of T1	Chang Plastics Co.	Designated 7-37	Nylon, V-0, 150ºC	UL 94	UL
Switch S1	Astronam Ltd.	LPPD-33	300 V, 2.5 A	IEC 61058-1	KEMA
- Description	Single throw, double pole switch used as main disconnect device Number of operations 10,000; contact gap 4 mm				
Supplementary information: [1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

零部件信息

注 10：已完成的关键件列表的示例。

	TABLE：Critical components information				Pass
Object/part No.	Manufacturer/ trademark	Type/model	Technical data	Standard	Mark（s）of conformity1)
AC Inlet	Makao Enterprise Ltd.	MA－224	250V ac，2.5 A	IEC 60320－1	VDE UL Recognized
Fuse（F1）	Fusecom Co.	F－240S	T2A，250V	IEC 60127－1 IEC 60127－3	VDE UL Recognized
Fuse Holder	Fusehod Co.	F－240SAP	10A，250V	IEC 60127－6	CSA UL Recognized
-Description	Secured through the double "D" shaped hole in the enclosure by a lock washer and a nut				
Enclosure	GE Plastics	Designated SE1	V－1，105℃，2.5mm thick	UL 94	UL
X－Capacitor（CX3）	Darin Co. Ltd	MPX2	0.33μF，275V，100℃	IEC 60384－14	VDE
Line Filter（LF1）	Wells Industry Ltd	HNN－B1	300V，130℃	—	—
Triple insulation wire used in LF1	Furukawa Co.	TEX－E2	130℃ See license attached	IEC 60950－1	VDE UL
Transformer T1	Wells Industry Ltd	HNN－2	300 V，130℃	IEC 60950－1	TUV Rh
Bobbin of T1	Chang Plastics Co.	Designated 7-37	Nylon，V－0，150℃	UL 94	UL
Switch S1	Astronam Ltd.	LPPD－33	300V，2.5A	IEC 61058－1	KEMA
-Description	Single throw，double pole switch used as main disconnect device Number of operations 10,000；contact gap 4 mm				
补充信息：1）提供证据以确保可接受的符合性水平。见 OD－CB 2039。					

Test Measurement section

(Tables, specific test conditions, test remarks and additional information)

Measured values shall be recorded in the tables.

2.10.3 and 2.10.4	TABLE: Clearance and creepage distance measurements					
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Functional:						
	350 V	230 V	1.5	2.0	2.5	2.7
Basic/supplementary:						
Reinforced:						
Supplementary information:						

<u>Note 11</u>: It is not allowed to use statements such as "OK", "meets the standard", "more than", "less than", or similar instead of the measured value unless otherwise specified by CTL.

5.1	**TABLE: temperature rise measurements**					Pass
	Test voltage (V) ....:	190				—
	t1 (°C) ....:	25				—
	t2 (°C) ....:	26				—
Temperature rise ΔT of part/at:				ΔT (K)		Allowed ΔT (K)
Fuse holder				55		65
Terminal				30		55
Temperature rise ΔT of winding:		R_1 (Ω)	R_2 (Ω)	ΔT (K)	Allowed ΔT (K)	Insulation class
Supplementary information: Heating Test conducted in an enclosure sized 4 by 3 by 12 cm.						

<u>Note 12</u>: The supplementary information field is provided for describing any specific test conditions or testing clarifications.

测试测量部分

（表格、具体测试情况、测试标注和附加信息）
表格中记录测量值。

2.10.3 and 2.10.4	TABLE：Clearance and creepage distance measurements						
Clearance (cl) and creepage distance (cr) at/of/between：	U peak (V)	U r. m. s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)	
Functional：							
	350V	230 V	1.5	2.0	2.5	2.7	
Basic/supplementary：							
Reinforced：							
Supplementary information：							

注 11：不允许使用类似“OK”、“满足标准”、“大于”、“小于”或类似词汇来代替测量值，除非 CTL 另有规定。

5.1	**TABLE：temperature rise measurements**					Pass
	Test voltage (V) ……	190				—
	t1 (C) ……：	25				—
	t2 (C) ……：	26				—
Temperature rise T of part/at：		T (K)		Allowed T (K)		
Fuse holder		55		65		
Terminal		30		55		
Temperature rise T of winding：	R_1 (Ω)	R_2 (Ω)	ΔT (K)	Allowed ΔT (K)	Insulation class	
Supplementary information： Heating Test conducted in an enclosure sized 4 by 3 by 12 cm.						

注 12：使用补充信息栏描述具体测试条件或说明。

19.7	TABLE: Abnormal operation, locked rotor/moving parts				
	Test voltage (V)...:	220/120			—
	Ambient, t_1 (°C) ....:	22/30			—
	Ambient, t_2 (°C) ....:	24/30			—
Temperature of winding	R_1 (Ω)	R_2 (Ω)	dT (K)	T (°C)	Max. T (℃)
Winding (1) - Model 234	0.097	0.127	77.34	101.34	105
Winding (1) - Model 4566	0.108	0.153	110.21	140.21	155
Winding (2) - Model 234					
Winding (2) - Model 4566					
Model 234					
Winding (1)	0.142	0.196	80.75	101.75	105
Winding (2)					
Model 4566					
Winding (1)	0.108	0.153	110.21	140.21	155
Winding (2)					
Supplementary information Motor Model 234 tested at 220 V and in the range of ambient temperature of 22ºC-24ºC Motor Model 4566 tested at 120 V and at 30ºC					

Note 13: Two examples that ensure traceability of measurements when completing a measurement table for multiple models are shown above.

19.7	TABLE：Abnormal operation，locked rotor/moving parts				
	Test voltage (V) ……：		220/120		□
	Ambient，t_1 (℃) ……：		22/30		□
	Ambient，t_2 (℃) ……：		24/30		□
Temperature of winding	R_1 (Ω)	R_2 (Ω)	dT (K)	T (℃)	Max. T (℃)
Winding (1) -Model 234	0.097	0.127	77.34	101.34	105
Winding (1) -Model 4566	0.108	0.153	110.21	140.21	155
Winding (2) -Model 234					
Winding (2) -Model 4566					
Model 234					
Winding (1)	0.142	0.196	80.75	101.75	105
Winding (2)					
Model 4566					
Winding (1)	0.108	0.153	110.21	140.21	155
Winding (2)					
Supplementary information Motor Model 234 tested at 220 V and in the range of ambient temperature of 22℃－24℃ Motor Model 4566 tested at 120 V and at 30℃					

注 13：上表给出了在完成多个型号产品的测量表格时，保证测试可追溯性的两个示例。

National Differences

(Section contains information and test results according to declared national differences).

Note 14: Provided example, based on the standard EN 60598-2-10, 2003 Edition, shows Group/CENELEC Common Differences.

ANNEX TO TEST REPORT IEC 60598-2-10 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Luminaries Part 2: Particular requirements: Section Ten – Portable luminaries for children	
Differences according....................:	EN 60598-2-10:2003 used in conjunction with EN 60598-1:2004+A1:2006
Annex Form No...............................:	EU_GD_IEC60598_2_10B
Annex Form Originator ....:	Intertek Semko AB
Master Annex Form ....:	2007-10
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Clause	Requirement + Test	Result - Remark	Verdict
	CENELEC COMMON MODIFICATIONS (EN 60598-2-10)		Pass
10.5 (3)	**MARKING**		Pass
10.5 (3.3.101)	Adequate warning on the package		Pass
10.10 (5)	**EXTERNAL AND INTERNAL WIRING**		Pass
10.10 (5.2.1)	Connecting leads		Pass
	- without a means for connection to the supply		N/A
	- terminal block specified		Pass
	- relevant information provided		Pass
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		Pass
10.10 (5.2.2)	Cables equal to HD21 S2 or HD22 S2		Pass

ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		Pass
(3.3)	DK: power supply cord with label		Pass
	IT: warning label on Class 0 luminaries		N/A
(4.5.1)	DK: socket-outlets		Pass
(5.2.1)	CY, DK, FI, SE, GB: type of plug		Pass

国家差异

（包含已声明的国家差异信息及测试结果）

注 14：提供的示例依据 EN 60598－2－10，2003。以集团/CENELEC 共同差异来说明。

ANNEX TO TEST REPORT IEC 60598－2－10 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Luminaries Part 2：Particular requirements：Section Ten — Portable luminaries for children
Differences according……：EN 60598－2－10：2003 used in conjunction with EN 60598－1：2004＋A1：2006
Annex Form No……：EU _ GD _ IEC60598 _ 2 _ 10B Annex Form Originator……：Intertek Semko AB Master Annex Form……：2007－10
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Clause	Requirement＋Test	Result－Remark	Verdict

	CENELEC COMMON MODIFICATIONS（EN 60598－2－10）		Pass
10.5（3）	**MARKING**		**Pass**
10.5（3.3.101）	Adequate warning on the package		Pass
10.10（5）	**EXTERNAL AND INTERNAL WIRING**		Pass
10.10（5.2.1）	Connecting leads		Pass
	-without a means for connection to the supply		N/A
	-terminal block specified		Pass
	-relevant information provided		Pass
	-compliance with 4.6，4.7.1，4.7.2，4.10.1，11.2，12and13.2 of Part 1		Pass
10.10（5.2.2）	Cables equal to HD21 S2 or HD22 S2		Pass

ZB	**ANNEX ZB，SPECIAL NATIONAL CONDITIONS（EN）**		Pass
（3.3）	DK：power supply cord with label		Pass
	IT：warning label on Class 0 luminaries		N/A
（4.5.1）	DK：socket－outlets		Pass
（5.2.1）	CY，DK，FI，SE，GB：type of plug		Pass

Additional options:

When completing the Test Report for a product for which the whole chapter of the standard is not applicable due to the nature of the product then, as an option, only the chapter's header may be printed in the final Report. (For example, modems and electric pencil sharpeners fall under the scope IEC 60950. The telecommunication requirements apply to a modem but are irrelevant for electric pencil sharpener.)

For pencil sharpener the Test Report may look as in the example below:

IEC 60950			
Clause	Requirement + Test	Result - Remark	Verdict

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**	N/A

Note 15: Example based on the TRF for IEC 60950, Third edition. Clauses 6.1 through 6.3 are not printed.

For additional clarity, the header may also be followed by a supplementary note.

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**	N/A
	Telecommunication requirements not applicable to the evaluated product.	—

If this time and paper saving option of compiling the TRF is selected, then the header with the N/A verdict is always required. This is to indicate that the chapter was considered during the investigation but was found to be not applicable. The printed header shows that the chapter was not accidentally omitted in the final Test Report.

附加选项

当标准的整章都因产品特性而不适用时，在填写报告时可选择仅在最终报告中保留该章节的标题。例如，调制解调器以及电动卷笔刀均属于 IEC 60950 的范畴。但通信要求适用于调制解调器而不适用于电动卷笔刀。

对于电动卷笔刀的报告可以参照如下所示的例子。

IEC 60950			
Clause	Requirement＋Test	Result －Remark	Verdict

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**	N/A—

注 15：示例是根据 IEC 60950 第三版的 TRF，6.1～6.3 章的内容没有打印。

为了更为清晰地注明情况，标题后还可以有附加的注释。

6	**CONNECTION TO TELECOMMUNICATION NETWORKS**	N/A
	Telecommunication requirements not applicable to the evaluated product	—

如果选择这种省时省纸的报告填写方式，那么通常都要求在标题处填写 N/A。这就表示该章节经过考虑之后，发现并不适用于该产品。将标题名称打印出来表示这一章并不是在最终的测试报告中由于意外的情况而被遗漏的。

List of test equipment used:

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to TMP or WMT procedures has been used.

Note 16: The list of test equipment is optional for SMTL and RMTL where quality system, verified by the NCB during the assessment, ensures appropriate document control system in place.
Other forms with a different layout but containing corresponding information are also acceptable.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date

使用的测试设备清单

当根据 TMP 或 WMT 程序，采用制造商测试实验室时，应在测试报告中提供已使用设备的完整清单。

注 16：测试设备清单对于 SMTL 和 RMTL 为可选项，它们的质量体系由 NCB 通过评审来验证，保证了合理的文件控制体系。其他具有不同格式但包含相应信息的表格也是可以接受的。

Clause	Measurement/ testing	Testing / measuring equipment/material used，（Equipment ID）	Range used	Last Calibration date	Calibration due date

ANNEX F
Example of Amendment to the original Test Report

附录 F
原始测试报告变更的示例

Test Report issued under the responsibility of:

TEST REPORT **IEC 60601 - 2- 49** **Medical electrical equipment** Part 2: Particular requirements for the safety of multifunction patient monitoring equipment

Report No.. ....:	TR-12345a (Note: The NCB rules for numbering system shall be used – Original Report Ref. No may include a suffix or it can be a new number, or it may be unchanged number as long as the Amendment Report can be link to the Original report without ambiguity).
Date of issue....................................:	2005 February 8, Amendment No. 2: 2007 March 16
Total number of pages......................	Enter number of pages
CB Testing Laboratory ....:	Name of Testing Laboratory (for LTR procedure see Clause 4.4)
Address ....:	Testing Laboratory address
Applicant's name...........................:	Company name
Address ....:	Company address
Test specification:	
Standard...:	IEC 60601-2-49, First Edition (2001)
Test procedure ....:	CB Scheme
Non-standard test method…………..:	N/A
Test Report Form No.....................:	IEC60601_2_49A
Test Report Form(s) Originator........:	Underwriters Laboratories Inc.
Master TRF......................................:	Dated April 2003

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If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description ....:	Monitoring System
Trade Mark ....:	None
Manufacturer ....:	Same as Applicant
Model/Type reference......................:	Models ABC-123, AP139 and AP154
Ratings ....:	12 V dc, 500 mA

Test Report issued under the responsibility of：

TEST REPORT IEC 60601 - 2- 49 Medical electrical equipment Part 2: Particular requirements for the safety of multifunction patient monitoring equipment	
Report No.. ....:	TR-12345a (注：应使用 NCB 的编号规则——原始报告编号应包括一个后缀或者是一个新的编号，或者编号保持不变，只要增补报告能毫无歧义地与原始报告相关联)
Date of issue......................................:	2005 February 8, Amendment No. 2: 2007 March 16
Total number of pages	Enter number of pages
CB Testing Laboratory ....:	Name of Testing Laboratory (for LTR procedure see Clause 4.4)
Address ....:	Testing Laboratory address
Applicant's name ....:	Company name
Address ....:	Company address
Test specification:	
Standard ....:	IEC 60601-2-49, First Edition (2001)
Test procedure ....:	CB Scheme
Non-standard test method…………..:	N/A
Test Report Form No. ....:	IEC60601_2_49A
Test Report Form(s) Originator........:	Underwriters Laboratories Inc.
Master TRF.......................................:	Dated April 2003

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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description ....:	Monitoring System
Trade Mark ....:	None
Manufacturer ....:	Same as Applicant
Model/Type reference......................:	Models ABC-123, AP139 and AP154
Ratings ....:	12 V dc, 500 mA

Testing procedure and testing location:			
☒ **CB Testing Laboratory**:	Name of the Main Testing Laboratory		
Testing location/ address .... :	Address of the Main Testing Laboratory		
☒ **Associated CB Laboratory:**	Name of Associated Testing Laboratory		
Testing location/ address .... :	Address of Associated Testing Laboratory		
Tested by (name + signature) .... :	Name	signature	
Approved by (name + signature)	Name	signature	
☐ Testing procedure: TMP			
Testing location/ address .... :			
Tested by (name + signature) ...... :			
Approved by (name + signature .... :			
☐ Testing procedure: WMT			
Testing location/ address .... :			
Tested by (name + signature) ...... :			
Witnessed by (name + signature) . :			
Approved by (name + signature) .. :			
☐ Testing procedure: SMT			
Testing location/ address .... :			
Tested by (name + signature) ...... :			
Approved by (name + signature) .. :			
Supervised by (name + signature) :			
☐ Testing procedure: RMT			
Testing location/ address .... :			
Tested by (name + signature) ...... :			
Approved by (name + signature) .. :			
Supervised by (name + signature) :			

TRF IEC60601_2_49A

Note 1: In the above example, testing was conducted by an ACTL (Satellite CB Testing Laboratory under the supervision of its Main CBTL. – See OD-CB2015).

Testing procedure and testing location:			
☒	**CB Testing Laboratory**:	Name of the Main Testing Laboratory	
Testing location/ address ....:		Address of the Main Testing Laboratory	
☒	**Associated CB Laboratory:**	Name of Associated Testing Laboratory	
Testing location/ address ....:		Address of Associated Testing Laboratory	
	Tested by (name + signature) ....:	Name	signature
	Approved by (name + signature)	Name	signature
☐	Testing procedure: TMP		
Testing location/ address ....:			
	Tested by (name + signature) ......:		
	Approved by (name + signature ....:		
☐	Testing procedure: WMT		
Testing location/ address ....:			
	Tested by (name + signature) ......:		
	Witnessed by (name + signature) .:		
	Approved by (name + signature) ..:		
☐	Testing procedure: SMT		
Testing location/ address ....:			
	Tested by (name + signature) ......:		
	Approved by (name + signature) ..:		
	Supervised by (name + signature) :		
☐	Testing procedure: RMT		
Testing location/ address ....:			
	Tested by (name + signature) ......:		
	Approved by (name + signature) ..:		
	Supervised by (name + signature) :		

TRF IEC60601_2_49A

注 1：在上面的例子中，测试由 ACTL 进行（由主 CBTL 监督的卫星 CB 测试实验室一见 OD－CB 2015）。

List of Attachments (including a total number of pages in each attachment):

This Amendment to the original Report Ref. No. TR-12345a contains 8 Report Pages and one new photograph.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
(Provide information about testing conducted for this Amendment, as appropriate.) Input test Heating test	Testing location: ACTL name

Summary of compliance with National Differences

List of countries addressed:

Instruction: *Provide information about verified/tested to National Differences.*

In case of technical modifications to the product, state if modified products still complies with previously evaluated National Differences.

☐ The product fulfils the requirements of _________ (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable).

Copy of marking plate:

"The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks"

Instruction: *Provide copy of a new marking plate (or artwork) for new models added, or when marking plate changed due to modified ratings, trademark, and other changes, as applicable.*

<table>
<tr><td colspan="2">List of Attachments (including a total number of pages in each attachment):
This Amendment to the original Report Ref. No. TR-12345a contains 8 Report Pages and one new photograph.</td></tr>
<tr><td colspan="2">Summary of testing:</td></tr>
<tr><td>Tests performed (name of test and test clause):
(Provide information about testing conducted for this Amendment, as appropriate.)
Input test
Heating test</td><td>Testing location:
Testing location: ACTL name</td></tr>
<tr><td colspan="2">Summary of compliance with National Differences
List of countries addressed:
Instruction: Provide information about verified/tested to National Differences.
In case of technical modifications to the product, state if modified products still complies with previously evaluated National Differences.

☐ The product fulfils the requirements of _________ (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable).</td></tr>
<tr><td colspan="2">Copy of marking plate:
“The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks”

Instruction: Provide copy of a new marking plate (or artwork) for new models added, or when marking plate changed due to modified ratings, trademark, and other changes, as applicable.</td></tr>
</table>

Test item particulars .... :	
Classification of installation and use .... :	See IEC 60601-1 Test Report
Device type .... :	MULTIFUNCTION PATIENT MONITORING EQUIPMENT - having more than one APPLIED PART
Contact Surface Temperature (T_R) .... :	36 °C
Accessories and detachable parts included ....:	N/A
Other options included ....:	N/A
Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement ....:	Pass (P)
- test object does not meet the requirement ....:	Fail (F)
Testing:	
Date of receipt of test items ....:	2007 March 2
Date(s) of performance of tests ....:	2007 March 7-9

Abbreviations used in the report:

- normal condition:	N.C.	- single fault condition:	S.F.C.
- operational insulation:	OP	- basic insulation:	BI
- double insulation:	DI	- supplementary insulation:	SI
- basic insulation between parts of opposite polarity:	BOP	- reinforced insulation:	RI

General remarks:
The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

List of test equipment must be kept on file and available for review.

This Test Report contains the general safety requirements as related to the usability of Medical Electrical Equipment. It can only be used together with IEC 60601-1 Test Report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per Sub-clause 6.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .... :	Yes

When differences exist; they shall be identified in the General Product Information section.

Test item particulars .... :	
Classification of installation and use .... :	See IEC 60601-1 Test Report
Device type .... :	MULTIFUNCTION PATIENT MONITORING EQUIPMENT - having more than one APPLIED PART
Contact Surface Temperature (T_R) .... :	36 °C
Accessories and detachable parts included ....:	N/A
Other options included ....:	N/A
Possible test case verdicts:	
- test case does not apply to the test object ....:	N/A
- test object does meet the requirement ....:	Pass (P)
- test object does not meet the requirement ....:	Fail (F)
Testing:	
Date of receipt of test items ....:	2007 March 2
Date(s) of performance of tests ....:	2007 March 7-9

Abbreviations used in the report:

- normal condition:	N.C.	- single fault condition:	S.F.C.
- operational insulation:	OP	- basic insulation:	BI
- double insulation:	DI	- supplementary insulation:	SI
- basic insulation between parts of opposite polarity:	BOP	- reinforced insulation:	RI

General remarks:
The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

List of test equipment must be kept on file and available for review.

This Test Report contains the general safety requirements as related to the usability of Medical Electrical Equipment. It can only be used together with IEC 60601-1 Test Report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Manufacturer's Declaration per Sub-clause 6.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .... :	Yes

When differences exist; they shall be identified in the General Product Information section.

Name and address of factory (ies) .... :	Provide factory information

General product information:

The multifunction patient monitoring equipment consists of a patient control console with two applied parts, data store module and a serial port adapter. The system serves as a means of transferring data from the monitoring system console to a PC. The Data Store system is Class III and powered by a direct plug-in power supply with a 12 V dc, 500 mA, SELV, Limited Power, output. Instructions are provided for choosing a suitable supply.

Amendment 1 Report:

The original Test Report Ref. No. TR-12345a, dated 2005 February 8 was modified on June 22, 2005 to include the following changes and/or additions, which were considered technical modifications:

New models added:
The two new Models AP139 and AP154 are multifunction patient monitoring equipment identical to the previous Model ABC-123, except for minor variations in the SELV circuitry and markings. After review of the construction, no additional tests were considered necessary.

Amendment 2 Report:

The original Test Report Ref. TR-12345a, dated 2005 February 8 was additionally modified on March 16, 2007 to include the following changes and/or additions, which were considered technical modifications:

New critical component xxx was added

Two tests were considered necessary. See the "Summary of testing".
A photo of modified printed wiring board with new component layout was added.

TRF IEC60601_2_49A

Note 2: In this example, additional pages (such as pages with test tables for conducted tests, component table) or pages that are affected by the product modifications should follow pages shown above. A photo-documentation needs be attached to this Amendment Report.

Note 3: The example shows Amendment 2 Report issued due to the technical modification to the product (critical components were added) with limited testing. However, the original Test Report was already modified once by Amendment 1 Report, which has been issued because new models were added. In this case, after engineering review of the differences and similarities between originally tested models and new models, no tests were considered necessary. In the provided example, the history of all changes and the reasons why the Amendment Reports have been issued are clearly documented.

Note 4: Only one more technical modification to the product is still allowed in the example given above before a new CB Test Reports shall be issued. (Refer also to IECEE 02, Clause 4.2.4.).

Name and address of factory (ies) .... : Provide factory information
General product information: The multifunction patient monitoring equipment consists of a patient control console with two applied parts, data store module and a serial port adapter. The system serves as a means of transferring data from the monitoring system console to a PC. The Data Store system is Class III and powered by a direct plug-in power supply with a 12 V dc, 500 mA, SELV, Limited Power, output. Instructions are provided for choosing a suitable supply. **Amendment 1 Report:** The original Test Report Ref. No. TR-12345a, dated 2005 February 8 was modified on June 22, 2005 to include the following changes and/or additions, which were considered technical modifications: New models added: The two new Models AP139 and AP154 are multifunction patient monitoring equipment identical to the previous Model ABC-123, except for minor variations in the SELV circuitry and markings. After review of the construction, no additional tests were considered necessary.
Amendment 2 Report: The original Test Report Ref. TR-12345a, dated 2005 February 8 was additionally modified on March 16, 2007 to include the following changes and/or additions, which were considered technical modifications: New critical component xxx was added Two tests were considered necessary. See the “Summary of testing”. A photo of modified printed wiring board with new component layout was added.

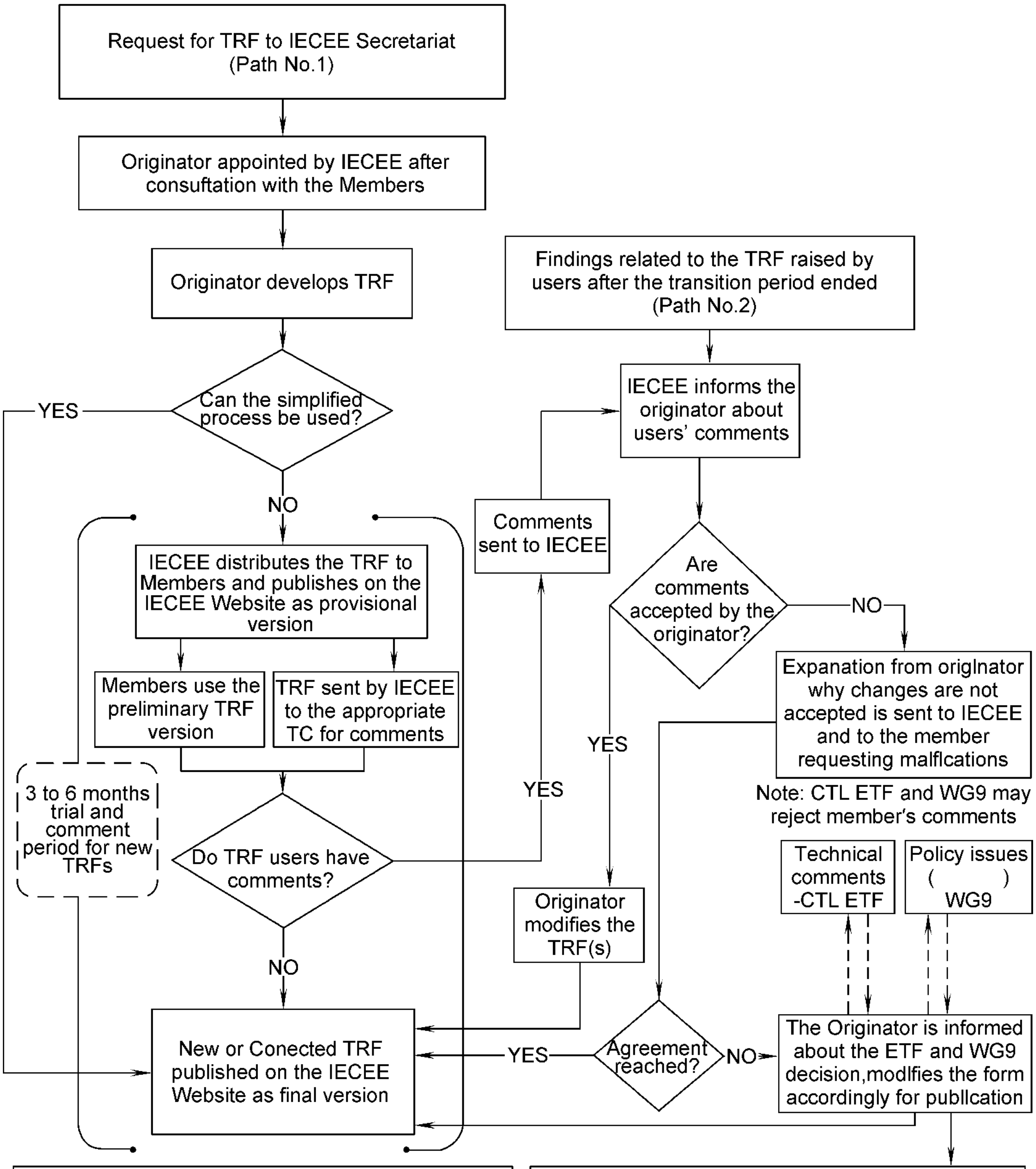
TRF IEC60601_2_49A

注 2：在这个例子中，附加测试页（如进行测试的测试表格，零部件列表）或产品变更影响的其他页应该遵照上面各页的示例。变更报告应该包含一个照片文件。

注 3：上面的例子中给出了由于产品的技术更新（关键零部件增加）经过有限的测试而出具的修订报告 2。然而，因为增加了新型号，原始测试报告已经由修订报告 1 进行了一次更改。在这个例子中，对原来的测试型号和新的测试型号的异同进行技术审核后，认为不需要进行测试。在提供的例子里，所有变更历史和修订报告的颁发原因都进行了清晰地描述。

注 4：上面的例子中，在出具新的 CB 测试报告之前，只允许对产品再进行一次技术变更（参见 IECEE 02，条款 4.2.4)。

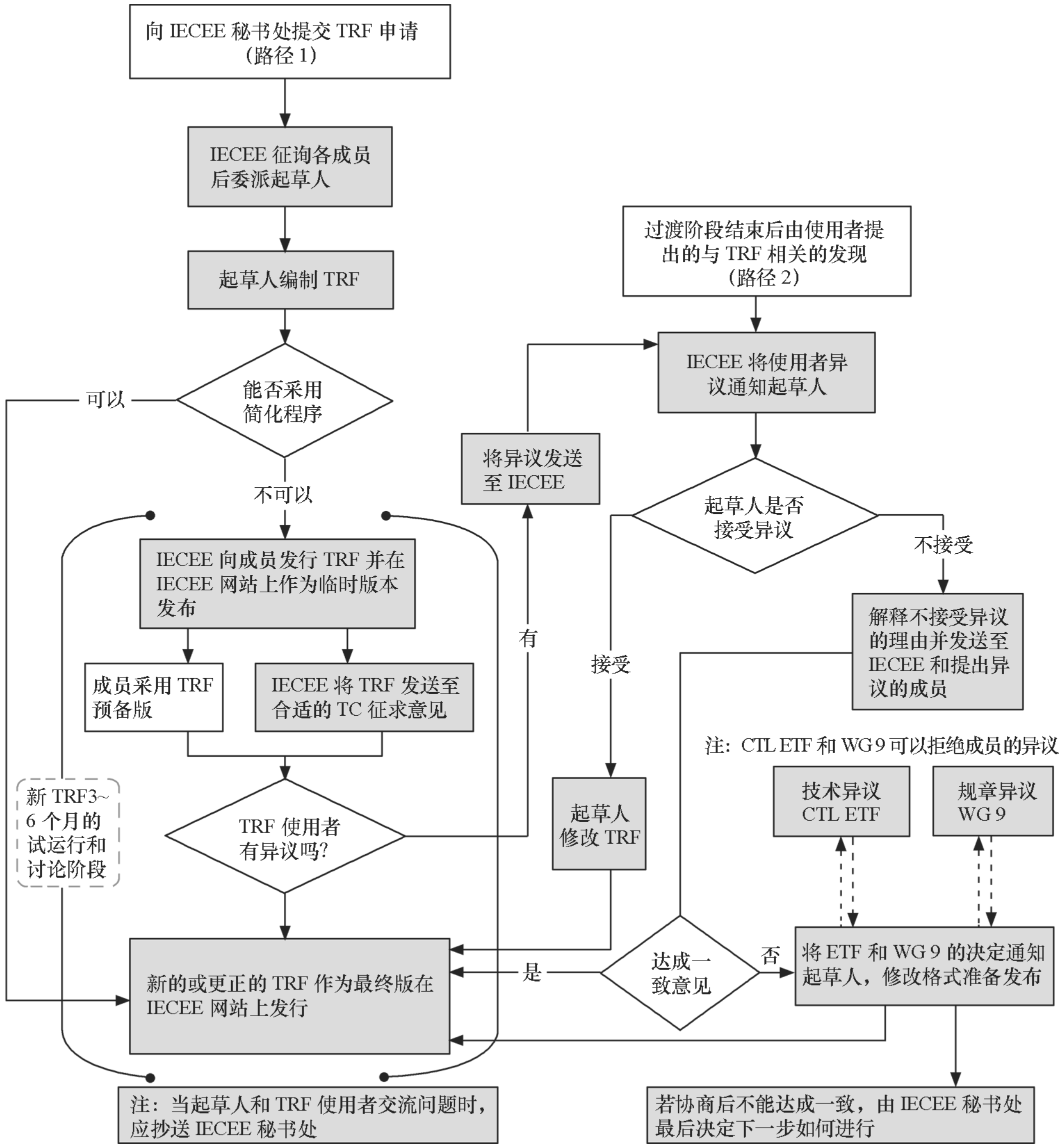
ANNEX G
TRF Flowchart for Originators, Administrator and Users



Note:IECEE Secretarlat shall be copled when the origlnator and TRF user communicate on the flndnga

If agreement can't be reached after the consultation, the final decision on how to proceed is left to the IECEE Secretariat

附录 G
针对 TRF 起草人、管理者和使用者的流程图



ANNEX H
Distribution of TRFs

The IECEE Secretariat maintains a list of completed TRFs and TRFs in preparation, which includes the expected completion date.

The assigned TRF Originator shall always inform the IECEE Secretariat on completion of the relevant TRF(s). The completed Master TRF(s) shall be sent by e-mail to the IECEE Secretariat in Geneva for distribution.

Contact Persons at the IECEE Secretariat are:

Mr. Pierre de Ruvo
IECEE Secretary
3, rue de Varembé
PO Box 131
CH-1211 GENEVA 20
SWITZERLAND
E-mail: pro@iec.ch
Tel: +41 22 919 0207
Fax: +41 22 919 0300

Ms. Sonia Alves-Polidori
3, rue de Varembé
PO Box 131
CH-1211 GENEVA 20
SWITZERLAND
E-mail: sap@iec.ch
Tel: +41 22 919 0223

Suggestions about changes/improvements to the TRF template(s) and Operational Document CB 2020 shall be communicated to the IECEE Contact Persons identified above.
The IECEE Secretariat shall provide the collected input to the WG 9 (TRFs) Convener for review and discussion at the next WG meeting, and later report to the CMC, when found appropriate.

附录 H
TRF 的发行

IECEE 秘书处保有一份已完成 TRF 和制作中的 TRF 的清单，其中包含预计完成的日期。

指派的 TRF 起草人需要告知 IECEE 秘书处有关 TRF 的所有完成情况。完成的 TRF 母版通过电子邮件发送到日内瓦的 IECEE 秘书处，以便于发行。

IECEE 秘书处联系人是：

Mr. Pierre de Ruvo

IECEE Secretary 3，rue de Varembé PO Box 131CH-1211 GENEVA 20 SWITZERLAND

E-mail：pro@iec. ch

Tel：+41 22 919 0207 Fax：+41 22 919 0300

Ms. Sonia Alves-Polidori 3，rue de Varembé PO Box 131CH-1211 GENEVA 20 SWITZERLAND

E-mail：sap@iec. chTel：+41 22 919 0223

有关 TRF 模板和 OD-CB2020 操作文件的修改/改进的建议应传达给以上的 IECEE 联系人。IECEE 秘书处应将收集到的建议交给 WG9（TRFs）召集人，以便在下一次工作组会议时进行审核和讨论，并在适当时报告 CMC。

Worldwide System for Conformity Testing and Certification of Electrical Equipment and Components (IECEE)

ANNEX I
Request form for corrections to the published TRF

TRF Ref. No.:		**Standard:**	**Request date:**
TRF Originator:		**Requesting NCB:**	**Decision date:**
Master TRF date:		**Contact person:**	**Decision taken by:**
Sub-clause:	**Issue to be addressed:**		**Decision:**

附录 I
TRF 内容修订的申请书

TRF 编号：	标准：	申请日期：
TRF 起草人：	提出请求的 NCB：	决议日期：
TRF 母版的日期：	联系人：	决议方：

子条款：	需处理的问题：	决议：

ANNEX J

The originator shall always use the latest TRF template available at the IECEE Website at http://www.iecee.org/cbscheme/html/cbtrep.htm. This applies to the TRF itself, to the National Differences templates and standardized attachments.

The list of available Test Report Forms as well as the list of Test Report Forms in preparation (including the expected completion date) can also be found on the IECEE Website.

Link to the TRF and National Differences templates, and List of available TRFs

附录 J
TRF 模板和可用 TRF 目录清单

起草人应使用 IECEE 网站上的最新 TRF 模板（http：//www.iecee.org/cbscheme/html/cbtrep.htm），该模板可用于 TRF 本身以及国家差异的模板和标准化的附录。

可使用的测试报告格式和正在制作的测试报告格式清单（包括计划完成的日期）可以在 IECEE 网站上找到。

连接至 TRF and National Differences templates，and List of available TRFs

第四章　IECEE CTL 操作程序

17. Rules Of Operation for CTL Proficiency Test Program

17. CTL 能力验证计划操作规则

RULES OF OPERATIONS FOR CTL PROFICIENCY TESTING PROGRAM

PURPOSE

The primary goal of the Committee of Testing Laboratories (CTL) is to increase the mutual confidence among the CB Testing Laboratories in the IECEE-CB Scheme.
In order to achieve this, the CTL operates Proficiency Testing Programs (PTP) designed to improve the consistency and reproducibility of test results.

1 PARTICIPATION

All Testing Laboratories accepted by the CB Scheme, including CB Testing Laboratories (CBTLs), and manufacturers' SMT and RMT Laboratories, are required to participate in all CTL Proficiency Testing Programs within their scope of participation in the CB Scheme.

Each PT Program will identify all relevant IEC standards within the scope of the IECEE to which it applies.

Based on the identified applicable standards for each PTP, the IECEE Secretariat will provide to the PTP Provider a list of all CBTLs and MTLs that are required to participate in each PT program. A full list of all laboratories required to participate in each PT program, will be also be provided on the CTL Website.

A NCB shall ensure that each CBTL, SMT, and RMT laboratory for which the NCB is responsible participates, within a 3-year cycle, in all available CTL PTPs that fall within the testing scope of the laboratory. The participation of a laboratory will normally be arranged and monitored by the responsible NCB.
Laboratories participating in a program with satisfactory results will not be required to repeat participation in that particular program for 3 years.

A NCB responsible for several laboratories may choose to co-ordinate the PTP arrangements for its family of laboratories.

The number of PT programs to take place each year shall be decided by the CTL and ratified by the CMC. The maximum number of new programs, ie. new topics, initiated each year shall be limited to three. Repeated PT programs also require CTL approval and CMC ratification.

A laboratory shall not be required to participate in more than 3 programs in a year, with the priority being given to new topics. Exception: A laboratory may be required to participate in more than 3 programs if required to repeat a test as a result of "outliers" in previous programs.

CTL 能力验证计划操作规程

目的：

测试实验室委员会（CTL）旨在提高在 IECEE CB 体系中实验室间的互信度。为此，CTL 实行能力验证计划（PTP）以更好地提高测试结果的一致性和再现性。

1. 参与

所有被 CB 体系接受的测试实验室，包括 CB 测试实验室（CBTLs），制造商的 SMT 和 RMT 实验室，均应参加在其 CB 体系范围内的所有 CTL 能力验证计划。

每项能力验证计划（PT Program）都会指明其在 IECEE 范围内所适用的所有相关 IEC 标准。

根据每项能力验证计划（PTP）确定的适用标准，IECEE 秘书处将应该参加每项 PT 计划的所有 CB 测试实验室（CBTLs）和制造商测试实验室（MTLs）清单提供给 PTP 提供者。参加每个 PT 计划的所有实验室清单将同时在测试实验室委员会（CTL）的网站上公示。

NCB 应保证其责任范围内的每个 CBTL、SMT 和 RMT 实验室在 3 年的周期内参加其测试范围内的所有 CTL 能力验证计划。通常由相关负责的 NCB 安排和监督实验室的参与。

参加某项 PT 计划且结果满意的实验室在 3 年内将不再被要求参加相同的项目计划。

负责多家实验室的 NCB，可以选择协调安排这些实验室参加 PTP。

每年进行的 PT 计划数量由 CTL 决定并需经 CMC 批准。每年启动的新计划，即新专题最多不能超过 3 项。重复的 PT 计划同样需要 CTL 认可并经 CMC 批准。

实验室每年参加的 PT 计划不必超过 3 项，新专题优先。例外：当实验室被要求对前一次计划的偏离结果进行重复测试时，实验室可能会被要求参加多于 3 项 PT 计划。

2 TOPICS

Suggestions for program topics may be made by a CTL Expert Task Force (ETF), CB Scheme Member Body (CB-MB), CB National Certification Body (CB-NCB), or a recognized CB Testing Laboratory (CBTL) - through its responsible NCB.
CTL Working Group 2 (Proficiency Testing Programs) makes recommendations for new PT programs – for approval at the CTL Plenary Meeting.

3 PROGRAM MANAGEMENT

The programs are managed by a PTP Provider independent of the participating testing organisations, working in coordination with CTL-WG2.

The PTP Provider shall be selected by the CTL Chairman in consultation with members of CTL WG2 and WG4, accepted at the CTL Plenary session and confirmed by the CMC. The PTP Provider shall have a proven capability in the design and management of programs related to electrical safety testing. The PTP Provider shall be formally recognised as meeting the following requirements

(a) ISO/IEC Guide 43-1:1997, Proficiency testing by inter-laboratory comparisons- Part 1: Development and operation of proficiency testing schemes.
(b) ISO/IEC 17025:2005, General requirements for the competence of testing and calibration laboratories.
(c) The PTP Provider shall be formally recognised for conformance with ILAC G13:2000, “Guidelines for the requirements for the competence of providers of proficiency testing schemes”.

The topics chosen by the CTL are developed into programs by the PTP provider in cooperation with CTL–WG 2.

In accordance with Section 1, the PTP Provider sends out the details of each program to the NCBs in advance. The NCBs are responsible for advising the PTP Provider which of their laboratories (CBTL, SMT and RMT) will participate in the particular PT program.

The PTP Provider supplies to the IECEE Secretariat the list of laboratories that have registered for each program.

The IECEE Secretariat follows up with the NCBs and their laboratories that are required to participate but have not registered.

The PTP provider prepares the test samples and first subjects them to a round of homogeneity tests at a competent testing laboratory, preferably an IECEE CBTL. The homogeneity laboratory is chosen by the Provider, in consultation with CTL-WG2.

2. 专题

对能力验证计划专题的建议可由 CTL 专家组（ETF）、CB 体系成员机构（CB-MB）、CB 国家认证机构（CB-NCB）提出，或由认可的 CB 测试实验室（CBTL）通过其责任 NCB 提出。

CTL-WG2（能力验证计划）推荐新的能力验证计划，并提交 CTL 全体会议批准。

3. 计划的管理

由独立于相关测试机构的 PTP 提供者协同 CTL-WG2 管理能力验证计划。

PTP 提供者应由 CTL 主席与 CTL-WG2 和 WG4 的成员商讨后挑选，经 CTL 全体会议确认，并经 CMC 批准。PTP 提供者应在电气安全测试方面的项目设计和管理上具有被证实的能力。PTP 提供者须得到正式认可，符合下列要求：

（a）ISO/IEC 导则 43－1：1997《利用实验室间比对的能力验证　第 1 部分：能力验证计划的建立和运作》；

（b）ISO/IEC 17025：2005《检测和校准实验室能力的通用要求》；

（c）PTP 提供者应被正式认可符合 ILAC G13：2000《能力验证计划提供者能力要求导则》。

PTP 提供者与 CTL-WG2 合作，将 CTL 选定的专题发展为计划。

根据第 1 部分的要求，PTP 提供者提前将每项计划的详细内容发送给 NCB，NCB 负责通知 PTP 提供者其所负责的实验室（CBTL、SMT 和 RMT）将参与各 PT 计划的信息。

PTP 提供者向 IECEE 秘书处提交已注册参加各项 PT 计划的实验室清单。

IECEE 秘书处将督促 NCB 以及其负责的那些应该参加但还没有注册的实验室。

PTP 提供者准备好试验样品，首先交给有能力的实验室（最好是 IECEE CBTL）进行一致性试验。该实验室由 PT 提供者与 CTL-WG2 协商后选择确定。

The PTP Provider sends out the programs, collects and analyses the results, prepares an initial report for comment, and completes a final report, including comments where appropriate from the Technical Advisors (TA).

The TAs are appointed for each PT programme by the WG-2 Convenor, typically from among the CTL-WG and ETF members, taking adequate care to avoid a potential conflict of interest.

Responsibilities in cases where corrective action is required are described in Section 6 of this document.

4 CTL-PTP RESULTS

The confidentiality of results from individual laboratories is important to the operation of the CTL PTPs.

Because of their responsibility for laboratories within the CB Scheme, NCBs shall make appropriate arrangements with their laboratories concerning access to laboratory results and the maintenance of confidentiality. Except as described in section 5, individual laboratory results shall be maintained on a confidential basis by the PTP Provider.

CTL-PTP results, both Interim and Final, are made available as follows:

(a) CBTL individual results – to the relevant laboratory and its responsible NCB.
(b) CBTL overall consolidated (anonymous) results – to the CTL Chairman and Secretary and the IECEE Secretariat, and are presented at the CTL Plenary meeting.
(c) All individual CBTL results – retained on file by the PTP Provider for reference and provided to the IECEE Executive Secretary on request.

5 CTL-PTP REPORTS

The CTL-PTP Reports shall be prepared and distributed by the PTP Provider and shall include the contents detailed in Annex 1.
At the completion of a program, the PTP Provider circulates an Interim PTP Report for a 2-month comment period to all participants, with a copy to the relevant NCBs.
The Interim Report must include proposed pass/fail ("outlier")criteria. Comments may be made on any aspect of the report and should be addressed to CTL WG2 and the PTP Provider. This is not a ballot, however, a lack of comments will considered as approval.

The final PTP report is issued after the 2-month comment period and after WG 2 has addressed the issues identified in the comments.

PTP 提供者发布计划，收集和分析结果，准备初步报告以供评议，并完成包括技术顾问（TA）适当评论的最终报告。

每项 PT 计划的技术顾问由 WG2 召集人慎重的选定以避免潜在的利益冲突，通常由 CTL-WG 和 ETF 成员担任。

当有整改措施要求时，相关职责要求见本文件第 6 部分。

4. CTL－PTP 结果

每个实验室结果的保密性对 CTL PTP 的操作非常重要。

因为对 CB 体系内实验室的职责所在，各 NCB 应在试验结果的获取和保密方面对其实验室做出适当的安排。除第 5 部分所表述的内容之外，PTP 提供者应对每个实验室的结果予以保密。

CTL-PTP 结果，包括中期结果和最终结果，按照下列原则发放：

（a）CBTL 个别结果——给相关实验室和其责任 NCB；

（b）CBTL 整体结果（匿名的）——给 CTL 主席和 CTL 秘书、IECEE 秘书处和 CTL 全体会议；

（c）所有 CBTL 的个别结果——由 PTP 提供者作为参考存档并以备 IECEE 执行秘书所需。

5. CTL－PTP 报告

CTL－PTP 报告应由 PTP 提供者准备和分发，应包含附录 1 所列出的内容。

一个项目完成后，PTP 提供者将向该项目所有参与者发送中期报告以供评议，评议期为两个月，并同时抄送给相关的 NCB。

中期报告应包括提议通过/不通过（“偏离”）的标准。所有参与者可对报告的任何部分进行评价并提交至 CTL-WG2 和 PTP 提供者。这并不是一个投票，但是没有评议将被视为赞成。

PTP 的最终报告在两个月的评议期结束，并且 WG2 已经处理了所有在评议中出现的问题之后发布。

6 CTL-PTP OUTLIERS

For each PT program, CTL-WG 2, in cooperation with the PTP Provider, shall analyze the statistical presentation of the results of the proficiency testing and decide what data are considered outliers. The criteria for determination of outliers may vary from program to program, and shall be reviewed and accepted by the participants in each case following the completion of the program and distribution of the Interim PTP report.
Comments on the Interim Report and the "outlier" criteria shall be directed to CTL WG2 and to the PTP Provider, who will use their best endeavours to address the comments.

Once the criteria for outliers have been accepted, the PTP Provider shall issue the final report to the participating laboratories and their NCBs, and shall compile a list of individual participants that have produced "outlier results".

7 APPEAL BY LABORATORY

A testing laboratory whose test results are classified as outliers has the right to appeal this classification by writing to the IECEE Secretariat and the PTP Service Provider. CTL-WG2 may be consulted in such cases, if it can be done without revealing the identity of the testing laboratory.

The appeal shall be filed within 15 days from the date on which the final report is sent, and shall clearly indicate the grounds for appealing.
Appeals that require technical input shall be sent by IFM to CTL-WG2, without revealing the identity of the testing laboratory. WG2 will be expected to respond within 15 days of receiving a request from IFM.

The objective is to have a decision on the appeal made by the PTP Provider within 30 days from the date on which the final report is sent. The IECEE Secretarial shall be copied on the final decision.

The PTP Provider shall submit the final list of individual participants that have produced "outlier results" to the IECEE Secretariat within 30 days from the date on which the final report is sent.

The IECEE Secretariat will issue a Non-conformance Report (NCR) to each testing laboratory on the "outlier list" (with a copy to its NCB), and will subsequently follow-up on corrective actions in accordance with the IECEE procedures. The time limit for the completion of these corrective actions shall not exceed 3 months.

Upon receipt of the Non-conformance Report, the organization shall provide to the IECEE Secretariat, within the time frame indicated on the Non-conformance Report, a Corrective Action Plan developed with the PTP Provider.

6. CTL－PTP 离群者

对于每个 PT 计划，CTL-WG2 与 PTP 提供者应对能力验证的测试结果的统计数据进行分析，并确定哪些是离群数据。确定离群的标准可随计划的不同而不同，在每个计划完成并分发中期 PTP 报告后，由参与者对其进行审阅和确认。

对中期报告和离群标准的评议直接发送至 CTL-WG2 和 PTP 提供者，他们将尽最大努力处理评议。

一旦确立了离群标准，PTP 提供者将向参与实验室和他们的 NCB 发布最终报告，并汇编一份结果为“离群”的参与者名单。

7. 实验室的申诉

测试结果被认定是离群数据的实验室有权写信至 IECEE 秘书处及 PTP 提供者进行申诉。在不泄露该实验室身份的前提下，可征询 CTL-WG2 对此情况的意见。

申诉应在最终报告发出之日的 15 天内提出，并应明确阐述申诉的理由。

IFM 应将需要技术输入的申诉发给 CTL-WG2，但测试实验室的身份不能泄露，WG2 应在收到 IFM 请求的 15 天内回复。

这样做的目的是为了 PTP 提供者在最终报告发出之日的 30 天内就申诉做出决定。最终决定应抄送 IECEE 秘书处。

PTP 提供者应在最终报告发出之日的 30 天内向 IECEE 秘书处提交一份“结果离群”的参与者的最终清单。

IECEE 秘书处将向“离群者名单”中的各实验室签发不符合报告（NCR）（同时抄送其责任 NCB），并按照 IECEE 程序跟踪各实验室的整改措施。整改措施应在 3 个月内完成。

收到不符合报告后，测试机构应在不符合报告的规定期限内向 IECEE 秘书处提供一份与 PTP 提供者协商过的整改措施计划。

The resolution of the technical aspects of the corrective actions shall be managed by the PTP Provider in coordination with the responsible NCB and the involved laboratory.

Help in taking corrective action may be obtained from various sources, including WG2 Convenor, the designated (WG2) Technical Advisor(s), or the PTP provider. NCBs are required to provide direction and help to their associated laboratories.

8 FINANCIAL MATTERS

An estimate of the cost of a new program shall be provided in advance to the CTL Chairman and CTL-WG 2 Convenor.
Programs are advertised well in advance with the details of a proposed date and the price for participation posted on the website of the PTP Provider. At this time, CBTLs are requested to indicate their intention to participate, so that appropriate planning can be performed.

Closer to the time of the program, more details are sent by the PTP Provider to the prospective participants for their final confirmation, with an invoice and instructions for payment that is to be made directly to the PTP Provider. Acceptable payment options are described on the PTP Provider’s website.

Laboratories can pay individually, or via their NCB, depending on arrangements made with the PTP Provider.

Payment is required before a laboratory is accepted for participation in the particular program. Unpaid invoices will be cancelled after a specified date.

9 WORKSHOP

Based on CTL membership interest, the CTL may hold workshops on PTPs conducted.

10 IEC STANDARD REVISION

The outcome of a CTL PTP may indicate the need for revision of the standard containing the test method. With concurrence of the CTL, a recommendation may be made to the relevant IEC Technical Committee for revision of the standard in accordance with § A.4.4 of IECEE 02.

整改措施中的技术内容应由 PTP 提供者在协调相关实验室和责任 NCB 后进行决定。

可从 WG2 召集人、WG2 指定的技术顾问或 PTP 提供者等多方获得进行整改措施的帮助。要求 NCB 能为其责任实验室提供指导和帮助。

8. 财务事项

新计划的估计费用应预先交给 CTL 主席和 CTL-WG2 召集人。

计划预期时间及参与者所需承担的费用将在 PTP 提供者网站上予以提前公布。在这一时间内，CBTL 需表明参与意向以便进行适当的计划。

计划即将进行时，PTP 提供者向预期参与者提供更多细节以便参与者进行最终确认，同时发送付款通知和直接向 PTP 提供者付款的说明，PTP 提供者网站上可查询能被接受的付款方式。

实验室可根据与 PTP 提供者的协商安排各自付款或通过相关 NCB 付款。

实验室需在被接受参加计划前付款。在规定期限内未付款的付款通知将被撤销。

9. 专题研讨会

基于 CTL 成员的关注，CTL 可以就已经进行的 PTP 举办专题研讨会。

10. IEC 标准修订

根据 CTL PTP 的结果可以对包含测试方法的标准提出修订的需要。根据 IECEE 02 文件条款 § A4.4，经 CTL 同意，可向相关的 IEC 技术委员会提交标准修改的建议。

ANNEX 1

CONTENT OF PROFICIENCY TESTING REPORTS

The following text is extracted exactly from ILAC Guide 13:2000.

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3.6.3 Proficiency testing scheme reports

3.6.3.1 General

The content of proficiency testing scheme reports will vary depending on the purpose of a particular scheme, but each report shall be clear and comprehensive and include data on the distribution of results from all participants, together with an indication of the performance of individual participants.

3.6.3.2 The following information shall normally be included in reports of proficiency testing schemes:

(a) name and address of the provider;
(b) names and affiliations of persons involved in the design and conduct of the scheme;
(c) date of issue of the report;
(d) report number and clear identification of the scheme;
(e) clear description of the items or materials used, including, where appropriate, details of sample preparation and homogeneity testing;
(f) laboratory participation codes and test results;
(g) statistical data and summaries, including assigned values and range of acceptable results and graphical displays;
(h) procedures used to establish any assigned value;
(i) details of the traceability and uncertainty of any assigned values, where applicable;
(j) assigned values and summary statistics for test methods/procedures used by other participants (if different methods are used by different participants);
(k) comments on participants' performance by the provider and technical advisers;
(l) procedures used to design and implement the scheme (which may include reference to a scheme protocol);
(m) procedures used to statistically analyse the data, where applicable. (see Annex 1 for guidance);
(n) advice, where appropriate, on the interpretation of the statistical analysis.

<u>Note</u>: For schemes operated on a regular basis, it may be sufficient to have simpler reports such that many of the recommended elements in 3.6.3.2 could be excluded from routine reports, but included in scheme protocols or in periodic summary reports and provided upon request to participants.

附录 1
能力验证报告的内容

下文节选自 ILAC 导则 13：2000

3.6.3　能力验证计划报告

3.6.3.1　总则

能力验证计划报告的内容随计划的目的不同而有所不同。但每份报告都应全面、清晰而且包括所有参与者的数据结果分布和每一参与者参与的情况说明。

3.6.3.2　能力验证计划报告通常包含下列信息：

(a) 提供者的姓名和地址；

(b) 所有参与设计和进行计划的人员姓名及联络方式；

(c) 报告发放日期；

(d) 报告号和明确的计划识别号；

(e) 所用材料物质的详细描述，必要时，包括准备样品和均匀性检验的详细信息；

(f) 实验室参与代码和测试结果；

(g) 统计数据和汇总，包括赋值、可接受结果的范围和图形显示；

(h) 用于形成任何赋值的过程；

(i) 适用时，给出任何赋值的溯源性和不确定度的详细情况；

(j) 其他参与者所用测试方法/程序的赋值和统计汇总（若不同的参与者使用不同的方法）；

(k) 提供者和技术顾问对参与者表现的评价；

(l) 用于设计和实施计划的程序（包括计划草案所提及的）；

(m) 适用时，用于统计分析数据的程序（参见附录 1）；

(n) 必要时，包括阐述统计分析的建议。

注：对于常规计划，简单的常规报告已经足够，无需包含 3.6.3.2 中建议的那么多要素，但在计划草案或定期总结报告，需包含以上要素，以便在参与者要求时提供。

3.6.3.3 Reports shall be made available to participants within specified timetables. In schemes such as long-term measurement comparison schemes, interim reports shall be issued to individual participants.

Note: Although, ideally, all original data supplied should be reported to all participants, it may not be possible to achieve this in some very extensive schemes. Participants should receive at least the results from all participants in summary (e.g. graphical) form.

3.6.3.3　在指定的时间内，参与者可获得报告。在一些计划，如长时间的测量比对计划中，应向参与者发放中期报告。

注：虽然理想的情况是向所有参与者报告所有提供的原始数据，但在一些广泛参与的项目中可能难以实现。参与者至少应能得到所有参与者测试结果的汇总（如用图形方式表示的）。

18. Guide on use of Photographs in CB Test Reports

18. CB 测试报告照片使用指南

1 GENERAL REQUIREMENTS

CB test reports shall include photographs of the test sample. Photographs are required for modified reports only when the photographs provided with the original test report are no longer representative of the product covered by the addendum report. Sufficient photographs shall be taken to clearly identify the test sample.

The CB test report shall clearly identify the product shown in the photographs (manufacturer, model number, type designation, etc.) by either labelling the photographs with the product identification or including the product identification in references to the photographs in the text of the report.

2 SPECIFIC REQUIREMENTS

The number of photographs will depend on the complexity of the test sample. A minimum number of 2 exterior and 2 interior photographs is preferred, where practical.

If printed in a test report, the preferred format is not more than 2 photographs on each page.

The quality of the photographs and prints shall be such that all necessary features can be clearly identified.

The photographs may include a ruler to show proportion.

> ***Note - Scaling of dimensions from photographs should not be done.***

It is recommended that the background is a colour that contrasts with the features of the test sample.

It is recommended that the camera be tripod mounted.

Lighting should be arranged to minimise shadows.

Colour photographs are required with a minimum resolution of 800x600 dpi.

1. 通用要求

CB 测试报告需要包含测试样品的照片。变更报告只在原测试报告的照片不能完全反映出变更产品的特性时，才需要附加照片。测试报告需附有足够的照片，以便能清楚地识别产品。

CB 测试报告应清楚标明照片内所示的产品（制造商、型号规格等），可以随照片标示产品识别信息，或在测试报告文本中包括与照片对应的产品识别信息。

2. 特殊要求

照片数量取决于测试样品的复杂程度。建议使用时，最少附有两张外观照片及两张内部结构照片。

如照片打印于报告中，建议每页不多于两张照片。

照片和打印的质量需能清楚显示出所有必要特性。

照片内可包含用来显示比例的直尺（注：不能从照片上测量尺寸）。

建议照片内的背景颜色与测试样品能形成适当的对比。

建议拍照时利用三脚架固定相机。

需要调控光线，以尽量减少阴影的出现。

彩色照片的分辨率应至少为 **800×600 dpi**。

3 PHOTOGRAPHS TO BE TAKEN

The photographs shall clearly identify the tested product including the safety critical components listed in the CB test report.

The following views are recommended:

- *External view of the assembled product (or component where a component is being tested) showing different views including the front, rear, top and base. One photograph may show more than one side.*
- *Marking and designation labels, if a copy of the original is not part of the report.*
- *Labelling of controls and indication lights.*
- *Internal construction including safety critical features.*
- *Supply terminations and cord anchorage.*
- *Earthing connections.*
- *Printed circuit boards critical to product safety– component side.*
- *Printed circuit boards critical to product safety – solder/pattern side.*
- *Details of safety critical components, both electrical and mechanical.*
- *Detachable parts critical to product safety.*

Additional photographs and special features:

- *Where a range of products has been tested, use photographs to show the different versions.*

- *Where modifications have been made show the details in the photographs.*

- *Special features, such as a marginal creepage distance, should be detailed. Use arrows or other visual aids to clearly identify special features.*

4 STORAGE AND DISTRIBUTION

It is preferred that a printed copy of the photographs is included with each printed copy of the CB test report. As an alternative, a CD with the photographic image files may be included with the printed report.

If the CB test report is issued electronically, then, electronic file copies of the photographs shall be included with the electronic file copy of the report.

It is recommended that the file for the photographs (in the report or on CD) is in secure format. PDF format recommended.

3. 照片拍摄

CB 测试报告内照片需清楚地显示测试产品，包括 CB 测试报告上列出的安全关键零部件。

建议照片包含以下内容：

- 装配产品（或测试的零部件）的外观需显示不同角度，包括前、后、上、下等面，一张照片可以同时显示多面；
- 标志和铭牌信息，如报告未包含标志和铭牌原件；
- 控制器和显示灯的标识；
- 内部结构，包括安全关键件；
- 电源端子和连接电线的固定装置；
- 接地连接；
- 与产品安全性相关的关键印制电路板-元件面；
- 与产品安全性相关的关键印制电路板-焊锡/图形面；
- 电气和机械安全关键零部件的详情；
- 可拆除分离的安全关键部件。

附加照片和特别要求：

- 测试一系列产品时，须用照片显示不同型号的产品；
- 有变更时，应在照片内详细显示；
- 特殊情况，如接近临界值的爬电距离等情况，则需详细说明，可用箭头或其他标记清晰标示出其特殊情况。

4. 储存和分发

建议所有 CB 测试报告的打印版本都包含照片。或者，测试报告可附带有照片档案的光盘。

如 CB 测试报告是用电子版本发放，则照片档案也需用电子版本形式一同发放。

建议照片文件（在测试报告或光盘内）应以安全格式储存，建议采用 PDF 格式。

19. Laboratory Procedure for Preparation, Attachment, Extension and Use of Thermocouples

19. 关于热电偶的制备、安装、延伸和使用的实验室程序

Laboratory Procedure for Preparation, Attachment, Extension and Use of Thermocouples

1 PURPOSE

This Laboratory Procedure establishes procedures for preparation, attachment, extension and use of thermocouples for temperature measurement.

2 SCOPE

This Procedure applies to thermocouples for temperature measurement used for testing of electrical and similar products. This Procedure describes recommended practices shown by experience to be useful. This Procedure does not prohibit use of other practices that may also be valid and useful.

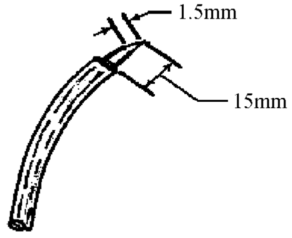
3 RESPONSIBILITY

Laboratory personnel who prepare and use thermocouples are responsible to follow this procedure.

4 PROCEDURES

4.1 Thermocouples shall be prepared by staff trained in preparation of thermocouples.

4.2 Thermocouples are to be prepared as noted:



4.2.1 Inner insulation stripped back approximately 1.5 mm from tip.

4.2.2 Outer insulation, if any, stripped back approximately 15 mm from tip.

4.2.3 The tip is to be joined by a single point weld. Other reliable and consistent methods of joining the thermocouple wires may be used upon prior acceptance of the CTL.

***Note* – Dimensions given are typical, not required.**

关于热电偶的制备、安装、延伸和使用的实验室程序

1. 目的

本实验室程序是针对温度测量中热电偶的制备、安装、延伸和使用情况制定的。

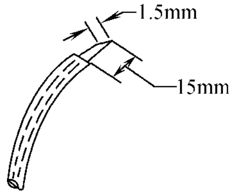
2. 范围

本程序适用于电气和类似产品测试中温度测量所用热电偶。本程序描述了推荐的操作程序，该程序经证实是有效的。本程序并不限制其他有效实用的操作程序的使用。

3. 责任

制备和使用热电偶的实验室工作人员有责任遵守本程序。

4. 程序



4.1　热电偶应由经过培训的员工制备。

4.2　热电偶的制备要求如下：

4.2.1　剥去内绝缘层直至距离顶端约 1.5mm 处；

4.2.2　剥去外绝缘层（如有）直至距离顶端约 15mm 处；

4.2.3　顶端通过点焊连接。若 CTL 接受其他可靠的、一致的热电偶导线连接方式也可以采用。

注：以上所给出的代表性尺寸，并非必须的。

4.3 **Placement** - The measuring thermocouple junction must be placed where the temperature is to be measured. The element must be placed and applied so that it reaches the same temperature as the part in question. Be cautious of possible electrical shock hazard and stress on the measuring equipment, if the thermocouple is connected to live parts of if thermocouples are connected to parts of different polarity. It may be appropriate to place additional electrical insulating sleeving over the conductors (not the thermocouple junction).

4.4 **Attachment** - The **thermocouple junction** shall be applied to be in intimate contact with the surface of the part to be measured in order to reach the same temperature as the part being measured. The **thermocouple junction** shall be in good thermal contact with the part being measured. The method of attachment shall be done in a way to have a minimal affect upon the temperatures measured.

4.3 布置一热电偶测量接点必须布置在温度测量处，使其与被测零部位达到相同的温度。如果热电偶连接到带电零部件，或者分别连接到不同极性的零部件，需要谨防测量设备可能出现的电击危险和应力损坏。此时适于在被测导体表面加设绝缘护套（而不是在热电偶接点处）。

4.4 安装一为了保证与被测零部件达到相同的温度，安装时热电偶接点应与被测零部件表面紧密接触。热电偶接点与被测零部件之间还应保持良好的热接触。热电偶的安装方法应使其对被测温度的影响最小。

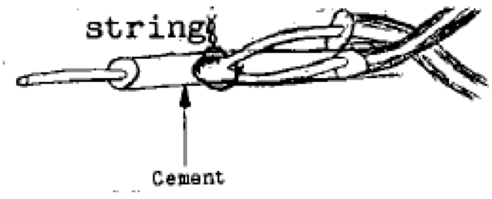
4.5 Leads shall be located in the same temperature environment as the bead itself.

4.5.1 Heat will be conducted along the thermocouple wire. Where the thermocouple junction is at a different temperature than the immediately adjacent leads, heat flow will take place for the leads to the junction or from the junction to the leads, and the best temperature measurement of the surface in contact with the junction will not be made.

4.5.2 This problem is minimized by thin leads. Generally, 0.320 mm (28 AWG) or 0.254 mm (30 AWG) thermocouples should be used.

4.6 **Securing of Thermocouples** - Several methods of securing thermocouples are tying, cementing, adhesive, peening, welding and soldering:

4.6.1 **Tying** - Tying with thread is used primarily for round items such as wire insulation.



4.6.2 **Cement** - Two examples are Kaolin powder mixed with sodium silicate solution in approximately equal proportions by volume and Cyanoacrylate adhesive (e.g. Henkel Sicomet). Cement is used to:

4.6.2.1 Secure the thermocouple to the surface whose temperature is being measured.

4.6.2.2 Provide a better thermal bond than would be obtained by a point contact of the junction with the surface.

4.6.2.3 Reduce the surface area of the junction and leads exposed to air at a temperature different from that being measured.

4.6.3 The thermocouple should be secured in position prior to application of the cement.

4.6.4 In order to prevent loosening of the junction and separation of the cement, the cement should be allowed to thoroughly set before reassembling the unit under test.

4.6.5 Soldering is useful for attaching thermocouples to copper or other metal surfaces to which solder will adhere. The advantage of using solder is better thermal conductivity and greater mechanical security for the junction will be obtained than with cement.

4.6.6 It should be noted that the temperature would be sensed primarily at the point furthest from the junction where the solder bridges the thermocouple leads. Cold solder joints and excessive solder should be avoided.

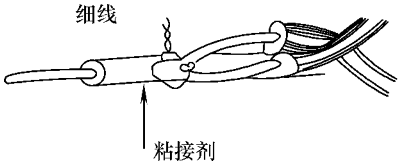
4.5　热电偶引线应处在与焊接点相同的温度环境中。

4.5.1　热量将会沿着热电偶导线传导。在热电偶接点与临近引线存在温差处，将产生从接点到引线或从引线到接点的热传递，于是无法对与接点接触的表面进行最佳的温度测量。

4.5.2　细的引线可使这种影响最小化。通常建议选用 0.320 mm（28 AWG）或 0.254 mm（30 AWG）的热电偶。

4.6　热电偶的固定—热电偶固定的方法有：绑扎、粘接、胶粘、敲击、焊接和锡焊：

4.6.1　**绑扎**—用细线绑扎，主要用于圆形物体的表面，例如导线绝缘。



4.6.2　**粘接**—两个实例：其一是等容积混合的高岭土和水玻璃；另一个是氰基丙烯酸盐粘接剂（例如汉高 Sicomet）。粘接用于：

4.6.2.1　将热电偶固定于测温表面。

4.6.2.2　较之接点和测温表面之间的点固定方式，粘接方式具有更好的热连接。

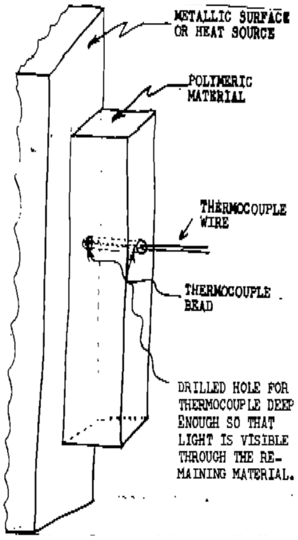
4.6.2.3　周围空气与待测温度存在一定温差，粘接方式减少了暴露在空气中的接点和引线的表面积。

4.6.3　在粘接之前，热电偶应先固定在位。

4.6.4　为了避免接点的松动和粘接剂的剥落，重新装配测试单元之前，允许粘接剂完全凝结。

4.6.5　对于铜质的或其他可焊的金属表面，锡焊是非常有效的固定方式。相对于粘接方式，锡焊的优势就是具有更好的热传导性和更牢的固定方式。

4.6.6　需要说明的是，温度主要是在焊锡桥接的热电偶引线接点的最远端点处被感知，应避免冷焊和使用过多焊料。



4.6.7 Confinement - Thermocouples can often be confined between layers of material or between metal and insulating materials and held in good thermal contact by pressure on the two surfaces.

4.6.8 Care shall be exercised to see that a confined thermocouple or its junction does not cause a separation between normally mating surfaces, which would change the temperature distribution at the point being measured.

4.6.9 A groove or hole may be placed in one of the materials to accept the thermocouple and its leads to preclude the above condition.

4.6.10 A thermocouple should ordinarily be kept slightly recessed beneath the surface, to be certain that the temperature being measured is not that of the adjacent surface material.

4.6.11 Peening - The thermocouple junction may be placed in a cavity and the metal peened over.

4.6.12 Tape - Pressure sensitive tape conveniently holds thermocouple leads in place.

4.6.13 Use as little tape as possible consistent with good mechanical securement of the thermocouple.

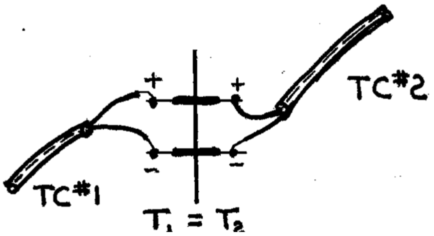
4.6.14 Glass tape with thermosetting adhesive is useful for high temperature applications.

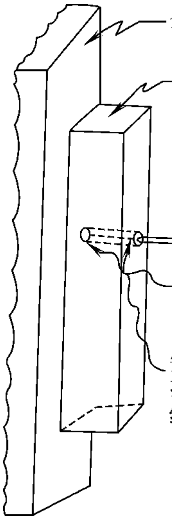
4.6.15 Tape can be used to provide strain relief for the thermocouple.

4.6.16 The tape should be located remote from the junction.

4.7 Connection - Where practical thermocouples shall be connected directly to the temperature measuring instrument. Where it is not practical to connect thermocouples directly to the instrument, thermocouple extension wires and connectors of the type for the thermocouples used shall be employed.

4.8 Exception - Thermocouple connectors need not be used in the limited situation where the thermoelectric affects of the junctions made are nullified such as shown in the following example for feed through connectors. Thermocouple wires TC#1 and TC#2 are the same type. Connections are made to the same type of conductors (e.g. copper alloy). The temperatures T_1 and T_2 at the connections are the same.





4.6.7 **封闭**—— 热电偶通常封闭在材料层间或金属与绝缘材料之间，通过两表面间的压力来保持良好的热接触。

4.6.8 操作时务必注意，被封闭的热电偶或其接点不能引起正常贴合表面的分离，这种情况将会影响测点处的温度分布。

4.6.9 为了避免上述情况，可以在材料上开孔或开槽，用以布置热电偶及其引线。

4.6.10 热电偶通常布置在测温表面的微凹处，以保证所测温度并非邻接表面的温度。

4.6.11 **敲击**—— 热电偶接点可以通过敲击金属使其固定在一个洞内。

4.6.12 **胶带**—— 压敏胶带可以方便地固定热电偶引线。

4.6.13 保证热电偶固定牢靠的同时，尽量使用少的胶带。

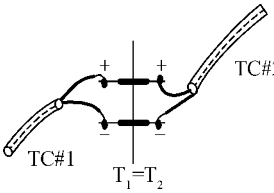
4.6.14 热固型玻璃胶带对于高温测量场合非常有效。

4.6.15 胶带可用于消除热电偶应变。

4.6.16 胶带应固定在远离接点处。

4.7 **连接**—— 热电偶使用时应直接与温度测量仪表连接。实际场合无法直接连接时，应采用热电偶延伸和与之适配的连接器。

4.8 **特例**—— 在接点热电效应对测量无影响的少数场合下，连接时无需使用热电偶连接器。如下图所示，热电偶导线 TC＃1 和 TC＃2 型号相同，与之连接的导体型号也相同（例如铜合金），因此，连接处的温度 T_1 和 T_2 相同。



4.9 The temperatures of the two reference(cold) junctions mentioned in the exceptions, must be the same as each other and the same as the temperature measuring instrument as well. The junctions and instrument must be protected (shielded) from heat and cold air flows, sunshine, heat emission from the test sample, lamps, soldering irons, etc., which could result in a change in the temperature of the reference junctions.

4.10 **Use** - The type of thermocouples utilized shall be used within the manufactured specification operating parameters for that type of thermocouple (e.g. temperature operating range).

4.11 **Guidance** - Additional guidance on preparation and use of thermocouples can be found in the following publications:

4.11.1 “Manual on The Use of Thermocouples in Temperature Measurement”, American Society for Testing and Materials, Special Technical Publication 470A.

4.11.2 “Temperature Measurement Thermocouples”, ANSI-MC96.1-1982.

4.11.3 “Calibration of Thermocouples”, European Cooperation for Accreditation of Laboratories, EA-10/08(formerly EAL-G31).

4.11.4 "Traceability of Temperature Measurement", UKAS LAB11.

4.11.5 "Thermocouples Part 1: Reference Tables", IEC 60584-1.

4.11.6 "Thermocouples Part 2: Tolerances", IEC 60584-2.

4.11.7 "Thermocouples Part 2: Tolerances", IEC 60584-2.

4.9 上述特例中提及的两个参考接点（T_1 和 T_2 冷端）的温度，必须彼此相同，而且与温度测量仪的温度相等。接点和温度测量仪必须避免冷热空气流动、太阳光照，以及测试样品、灯具、电烙铁等热辐射源的影响，这些影响将导致参考接点温度的改变。

4.10 **使用**—— 选用的热电偶必须在制造商规定的工作参数范围内使用（例如温度范围）。

4.11 **导则**—— 关于热电偶制备和使用的其他指导，可以参见如下刊物：

4.11.1 “温度测量热电偶使用手册”，美国测试与材料协会，技术专刊 470A。

4.11.2 “温度测量热电偶”，ANSI－MC96.1-1982。

4.11.3 “热电偶的校准”，欧洲实验室认可协会，EA－10/08（以前刊号 EAL-G31）。

4.11.4 “温度测量的溯源性”，UKAS LAB11。

4.11.5 “热电偶 第一部分：参考表格”，IEC 60584-1。

4.11.6 “热电偶 第二部分：允差”，IEC 60584-2。

4.11.7 “热电偶 第二部分：延长和延伸－允差与鉴别系统”，IEC 60584-2。

20. Laboratory Procedure For Acceptance of Thermocouple Wire

20. 验收热电偶线的实验室程序

LABORATORY PROCEDURE FOR ACCEPTANCE OF THERMOCOUPLE WIRE

1 PURPOSE

This Laboratory Procedure establishes procedures for acceptance of thermocouple wire.

2 SCOPE

This procedure applies to acceptance of thermocouple wire used for temperature measurement in conjunction with testing of electrical and similar products.

3 RESPONSIBILITY

Laboratories must ensure that the thermocouple wire purchased is of acceptable accuracy. Laboratory personnel assigned to acceptance of shipments of thermocouple wire are responsible to follow this procedure.

The type of thermocouples utilized must be used within the manufactured specified operating parameters for that type of thermocouple.

Note: Typically, Types J, K and T tolerance class 1 thermocouples are used for CB Scheme testing.

4 PROCEDURES:

4.1 When ordering thermocouple wire, the thermocouple class or special limits requirements shall be specified when placing the purchase order.
4.2 The supplier of the wire shall be required to provide a certificate of compliance with the specification. The certificate of compliance shall include the results of the pre-shipment testing used to establish conformance. As a minimum, the testing shall include one thermocouple taken from the reel of thermocouple wire.
4.3 Alternative 1 - the laboratory may perform testing on incoming thermocouple wire shipments.
4.4 Alternative 2 - the laboratory may performing testing on individual thermocouples.
4.5 Compliance shall be based on measurements traceable to the International System of Units (SI).
4.6 Certificates of compliance and results of testing shall be retained as part of the laboratory records.

验收热电偶线的实验室程序

1. 目的

本实验室程序是针对热电偶线的验收而制定的程序。

2. 范围

本程序适用于电气及类似产品温度测量中所用热电偶线的验收。

3. 责任

实验室必须确保所购买的热电偶线能达到可接受的精度，实验室指定的对热电偶线进行验收的人员有责任遵守本程序。

所应用的热电偶类型须使用在该种类型热电偶制造的额定运行参数内。

注：通常，J，K，T 型 1 级允差热电偶适用于 CB 测试。

4. 程序

4.1　定购热电偶线时须在定购单上标明热电偶的等级或者专用限值。

4.2　要求热电偶线的供应商提供一份符合规范的证书，证书内容应包括出货前符合性测试结果，测试中至少要包括对热电偶卷中截取一段热电偶的测试。

4.3　可替代方案 1：实验室可以对所有批次的热电偶线进行测试。

4.4　可替代方案 2：实验室可以对单根热电偶线进行测试。

4.5　符合性是基于可追溯到国际单位制的测量结果。

4.6　符合性证书和测试结果必须作为实验室记录的一部分进行保存。

21. Procedure for Measuring Laboratory Power Source Characteristics

21. 实验室电源特性的测量程序

Procedure for Measuring Laboratory Power Source Characteristics

1 PURPOSE

1.1 The purpose of this document is to establish a procedure for measuring laboratory power source characteristics to determine conformance with the default characteristic requirements for laboratory power sources established by the IECEE CB Scheme in reference to the requirements in IEC/ISO 17025, General requirements for the competence of testing and calibration laboratories, clauses 5.3.1 and 5.3.2.

1.2 The results of many tests on electrical products tested in accordance with product safety testing standards depends on the characteristics of the electrical power source used to power the product under test. Some examples of how power source characteristics can affect test results are:

a) Temperatures on electrical heat generating parts are affected by the voltage applied. In most cases an increase in voltage causes an increase in temperature, while for some products, a decrease in voltage also results in an increase in temperature.

b) The frequency of the power source can also affect temperatures on electrical heat generating parts such as motors, transformers, and solenoids.

c) The harmonic distortion of a power source not only affects temperature of electrical heat generating parts such as motors, transformers, and solenoids, but also affects leakage currents for the product.

1.3 Accordingly, testing standards specify the voltage, frequency, and wave shape of the power source to be used - for example 230 V, 50 Hz, sinusoidal power source. These specifications in the standard are made with the understanding that the specified characteristics are maintained as stated throughout the test. In the real world, however, a power source that meets these ideal specifications is not possible. Some standards recognize this and include tolerances for the power source specifications, while other standards do not. The CTL has proposed default power source stability requirements to be followed when the test standard does not contain tolerances for the power source to be used. These power source stability requirements define the characteristics of real world power sources that can be used in the testing laboratory, so that laboratories can obtain consistent, uniform and repeatable results and, thus, further the exchange of testing data among members of the CB Scheme.

实验室电源特性的测量程序

1. 目的

1.1　本文件的目的是制订实验室电源特性的测量程序，以确定实验室电源是否符合IECEE CB体系的默认要求，这一要求是根据IEC/ISO17025《检测和校准实验室能力的通用要求》条款5.3.1和5.3.2制定的。

1.2　依照安全测试标准进行测试，许多电气产品的测试结果依赖于为其供电电源的特性。下面是一些电源特性影响测试结果的例子：

a）电气发热零部件的温度受供电电压影响。多数时候，电压的升高导致温度的升高。有时，电压的降低也会导致某些产品温度的升高。

b）电源频率也能对电气发热零部件的温度产生影响，如：电动机、变压器和电磁线圈。

c）电源谐波失真不仅影响电气发热零部件的温度，如：电动机、变压器和电磁线圈，而且影响产品的泄漏电流。

1.3　测试标准规定了所使用的电源的电压、频率和电源波形特性，如：230V、50Hz、正弦波电源。标准的规定是建立在测试过程中要始终维持标准所规定特性的理解之上的。但实际上，符合这个理想的技术参数的电源是不可能存在的。由于这个原因，一些标准中引入了电源技术参数的容差。同时，有些标准没有考虑这个原因。CTL提议当测试标准没有规定所使用电源的容差时，所使用电源应符合默认的电源稳定性要求。这些电源稳定性要求明确了测试实验室可以使用的实际电源特性，因此，实验室可以得到一致、统一和可重复的测试结果，从而有利于CB体系成员间的测试数据交换。

2 SCOPE

2.1 The procedure described in this document applies to measurement of laboratory power source voltage and frequency stability, and total harmonic distortion (THD) to determine conformance with the default characteristic requirements for laboratory power sources established by the IECEE CB Scheme.

2.2 This guide applies to the following situations:

a) Testing is performed within the maximum rated current/load capacity of the power source.

b) Normal operating conditions of the tested product.

2.3 The requirements apply to stability of laboratory power sources only. The requirements do not address short circuit current testing, abnormal testing, switching testing, and the like that relate to source capacity.

2.4 The power source stability requirements in this operating procedure apply to testing of products that are connected to ordinary branch circuits found in residences and businesses - for example 120 V, 15 and 20 A; 240 V, 15 A circuits in North America and 230 V, 10 and 15 A branch circuits in Europe.

2.5 Requirements for laboratory power sources used to test products on other types of power sources than mentioned in clause 2.4 are not specifically given in this operating procedure. Nevertheless, those laboratory power sources still need to comply with the requirements in IEC/ISO 17025, clauses 5.3.1 and 5.3.2.

2.6 This operating procedure applies only to laboratory power sources supplying power to equipment under test. It does not apply to laboratory "house power", that is power sources used to power instruments, ambient chambers, lights, and the like.

2.7 This operating procedure does not apply to DC power sources used to supply power to DC rated electrical equipment under test.

3 DEFINITIONS

3.1 Definitions unique to this document

3.1.1 Automatic adjustment (power source)

Regulation of a power source by electronic, electrical, or mechanical means that automatically maintains the voltage and/or frequency at a prescribed value.

3.1.2 Manual adjustment (power source)

Regulation of a power source by manual adjustment of an autotransformer, tapped transformer with selector switch, or similar means, to maintain the voltage and/or frequency at a prescribed value.

3.1.3 Robust power source

Power source of sufficient capacity to meet the power source stability requirements without the need for further regulation or adjustment.

2. 范围

2.1　本文件所描述的程序适用于实验室电压和频率的稳定性和总谐波失真度（THD）的测量，以确定和IECEE CB体系制定的实验室电源默认特性要求一致。

2.2　本文件适用于下列情形：

- 在电源的最大额定电流/负载范围内进行测试。
- 被测试产品处于正常工作状态。

2.3　本要求仅适用于测试实验室电源的稳定性。本要求不适用于短路电流试验、非正常试验、开关试验和类似的与电源容量有关的试验。

2.4　本程序的电源稳定性要求适用于和普通分支电路连接的产品的试验，这些普通分支电路分布在住宅和商业区，如：北美的120V，15A和20A；240V，15A分支电路和欧洲的230V，10A和15A分支电路。

2.5　测试连接到2.4条以外电路的产品的实验室电源要求在本操作程序中未进行规定。但这些实验室的电源仍应符合IEC/ISO 17025条款5.3.1和5.3.2的要求。

2.6　本操作程序只适用于为被测设备供电的电源，而不适用于实验室的“房屋电源”，即为测试仪器、环境室、照明等供电的电源。

2.7　本操作程序不适用于为被测直流电气设备供电的直流电源。

3. 定义

3.1　本文件的特定定义

3.1.1　自动调节（电源）

通过电子、电气或机械方法调节电源，使电压和/或频率自动维持在一个规定值。

3.1.2　手动调节（电源）

通过自耦变压器、带选择开关的抽头式变压器或类似方法对电源进行手动调节，使电压和/或频率维持在一个规定值。

3.1.3　稳健电源

有足够容量的电源符合电源稳定性要求，无需进一步进行调节或调整。

3.2 Acronyms unique to this document

3.2.1 Maximum open circuit voltage, $V_{oc,max}$
3.2.2 Minimum open circuit voltage, $V_{oc,min}$
3.2.3 Maximum voltage loaded, $V_{ld,max}$
3.2.4 Minimum voltage loaded, $V_{ld, min}$
3.2.5 Current loaded, I_{ld}
3.2.6 Voltage nominal, V_{nom} = specified test voltage (e.g. 120 V, 230 V, 240 V)
3.2.7 Maximum frequency open circuit, $F_{oc,max}$
3.2.8 Minimum frequency open circuit, $F_{oc,min}$
3.2.9 Maximum frequency loaded, $F_{ld,max}$
3.2.10 Minimum frequency loaded, $F_{ld, min}$
3.2.11 Maximum harmonic distortion open circuit, THD_{oc}
3.2.12 Maximum harmonic distortion loaded, THD_{ld}

3.3 Equations unique to this document

3.3.1 Voltage regulation open circuit

$$Reg\ V_{oc} = [MAX(V_{oc,max} - V_{nom};\ V_{nom} - V_{oc,\ min})/V_{nom}] \times 100\%$$

3.3.2 Voltage regulation loaded

$$Reg\ V_{ld} = [MAX(V_{ld,max} - V_{nom};\ V_{nom} - V_{ld,\ min})/V_{nom}] \times 100\%$$

3.3.3 Frequency regulation open circuit

$$Reg\ F_{oc} = [MAX(F_{oc,max} - F_{nom};\ F_{nom} - F_{oc,\ min})/F_{nom}] \times 100\%$$

3.3.4 Frequency regulation loaded

$$Reg\ F_{ld} = [MAX(F_{ld,max} - F_{nom};\ F_{nom} - F_{ld},\ min)/F_{nom}] \times 100\%$$

3.3.5 Total Harmonic Distortion

THD = SQRT(sum of all squares of amplitude of all harmonic voltages/square of the amplitude of the fundamental voltage) x 100%

Note: Function **MAX(value 1; value 2)** returns the maximum of **value 1** and **value 2**.

Example: In the calculation MAX(V_{max}-V_{nom}; V_{nom}-V_{min}) use the maximum value of either upper (V_{max}-V_{nom}) or the lower (V_{nom}-V_{min}).”

3.2 本文件的特定缩写

3.2.1 最大空载电压，$V_{oc,max}$

3.2.2 最小空载电压，$V_{oc,min}$

3.2.3 最大负载电压，$V_{ld,max}$

3.2.4 最小负载电压，$V_{ld,min}$

3.2.5 负载电流，I_{ld}

3.2.6 额定电压，V_{nom}＝指定测试电压（如：120 V，230 V，240 V）

3.2.7 最大空载频率，$F_{oc,max}$

3.2.8 最小空载频率，$F_{oc,min}$

3.2.9 最大负载频率，$F_{ld,max}$

3.2.10 最小负载频率，$F_{ld,min}$

3.2.11 最大空载谐波失真，THD_{oc}

3.2.12 最大负载谐波失真，THD_{ld}

3.3 文件中的计算等式

3.3.1 空载电压调整：

$$\text{Reg } V_{oc} = [\text{MAX}(V_{oc,max} - V_{nom};\ V_{nom} - V_{oc,min}) / V_{nom}] \times 100\%$$

3.3.2 负载电压调整：

$$\text{Reg } V_{ld} = [\text{MAX}(V_{ld,max} - V_{nom};\ V_{nom} - V_{ld,min}) / V_{nom}] \times 100\%$$

3.3.3 空载频率调整：

$$\text{Reg } F_{oc} = [\text{MAX}(F_{oc,max} - F_{nom};\ F_{nom} - F_{oc,min}) / F_{nom}] \times 100\%$$

3.3.4 负载频率调整：

$$\text{Reg } F_{ld} = [\text{MAX}(F_{ld,max} - F_{nom};\ F_{nom} - F_{ld,min}) / F_{nom}] \times 100\%$$

3.3.5 总谐波失真：

THD＝（所有谐波电压振幅的平方和/基波电压振幅的平方）的平方根×100％

注：函数 MAX（值 1；值 2）是值 1 和值 2 的最大值的返回函数。

例：在函数 MAX（$V_{max}-V_{nom}$；$V_{nom}-V_{min}$）的计算中，结果是（$V_{max}-V_{nom}$）和（$V_{nom}-V_{min}$）中的最大值。

4 RESPONSIBILITY OF THE LABORATORY

4.1 Laboratory power source characteristics suitability measurements shall be performed upon initial installation, modification, or repair of the laboratory power source(s).

4.2 Test voltages shall be monitored for stability throughout the performance of testing programs to ensure conformance with the voltage stability requirements.

4.3 In accordance with ISO/IEC 17025:2005, clause 5.3.2, it is the responsibility of the laboratory to monitor, control and record characteristics of the laboratory power source to ensure continued conformance with the requirements. Considerations to be taken into account include changes in characteristics of the power as supplied by the electric utility (or other source), changes in load conditions on the power source substation due to power consumption of neighboring businesses, and affects of other testing being conducted in the laboratory.

5 APPLICABLE DOCUMENTS

ISO/IEC 17025, 2005 - General requirements for the competence of testing and calibration laboratories

6 GENERAL

Instructions given in this document are to be followed to assure test consistency and repeatability.

7 EQUIPMENT

7.1 Instruments:

7.1.1 Voltmeter
7.1.2 Ammeter
7.1.3 Frequency meter
7.1.4 Total harmonic distortion analyzer
7.1.5 Resistive loads

Note 1: Other types of equipment providing equivalent functionality may be used.

Note 2: Accuracy of meters shall conform with CTL DSH-251b.

4. 实验室的责任

4.1　实验室电源特性适用性测量应在实验室电源的最初安装、更改和维修时进行。

4.2　测试电压的稳定性应在整个测试过程中进行监测，确保与电压稳定性要求一致。

4.3　按照 ISO/IEC 17025：2005 中 5.3.2 条规定，实验室有责任对电源特性进行监测、控制和记录，确保与要求持续一致。应考虑下列情况所带来的影响：由于供电原因（或其他因素）而导致的电源特性的变化、由于相邻商业区电能消耗或实验室的其他测试导致的变电站负载状态的变化。

5. 适用文件

ISO/IEC 17025，2005—检测和校准实验室能力的通用要求

6. 通用要求

应遵照本文件中的指示说明以确保测试的一致性和可重复性。

7. 设备

7.1　仪器

7.1.1　电压表

7.1.2　电流表

7.1.3　频率计

7.1.4　总谐波失真分析仪

7.1.5　阻性负载

注 1：相同功能的其他类型设备也可使用。

注 2：仪表的准确度应符合 CTL DSH－251b 的要求。

8 REQUIREMENTS

8.1 When not otherwise specified in the testing standard, the power source used for testing shall meet the following requirements:

8.1.1 Voltage stability: +/- 3 percent maximum

8.1.2 Frequency stability: +/- 2 percent maximum

8.1.3 Total harmonic distortion (THD): maximum 5 percent

8.2 Conditions are to be maintained at the point of testing.

8.3 Voltage regulation may be achieved by:

8.3.1 Robust source - Acceptable for all situations.

8.3.2 Automatic Adjustment - Acceptable for all normal operating conditions. May be used for abnormal conditions if regulator is sufficiently robust and fast acting to handle demands under fault conditions.

8.3.3 Manual adjustment - Such as auto-transformer in conjunction with periodic voltage monitoring (for example every 15 minutes minimum) if load is constant and the voltage is stable. Cannot be used for fluctuating loads and abnormal tests.
Note: Itis not appropriate to use a manual means of adjustment when poor power line quality affects voltage stability.

9 PROCEDURES

9.1 Method for Single Phase Power Source

9.1.1 Characteristics of electrical power sources representing electrical mains connections used in the testing laboratory shall be measured at the point where tests are performed. Typically, this point is considered to be test station receptacle or wiring terminals where the test setup is connected.

9.1.2 There are generally three types of arrangements for AC power regulators used for laboratory test power:

8. 要求

8.1　当测试标准没有特定指出时，测试所使用的电源应满足下列要求：

8.1.1　电压稳定性：最大＋/－3％；

8.1.2　频率稳定性：最大＋/－2％；

8.1.3　总谐波失真度（THD）：最大 5％。

8.2　测试点要持续满足条件。

8.3　电压可以通过下列方法进行调节：

8.3.1　稳健电源—所有情形都接受。

8.3.2　自动调节—所有正常工作状态都接受。如果调节器十分稳定和在异常条件下能快速达到要求，自动调节可用于故障条件。

8.3.3　手动调节—例如在负载不变和电压稳定时，采用自耦变压器并进行周期电压监测（例如最少每隔 15 分钟）。不能用于波动负载和故障测试。

注：由于输电线质量问题而影响电压稳定性时，手动调节方式不适用。

9. 程序

9.1　单相电源的测试方法

9.1.1　表示检测实验室使用的电源连接特性的参数应在测试进行的位置上进行测量。代表性的位置是连接测试设置的插座或接线端子。

9.1.2　实验室测试电源使用的交流电源调节器可以有三种类型的布置：

A. Central regulator with power distributed to test stations by branch circuit wiring.

B. Regulator located at test station with product under test either connected directly to the regulator output or connected to the regulator through a receptacle or terminals on the test station in turn connected to the regulator through a short distance of adequately sized wiring.

C. Mobile regulators moved to test locations in the laboratory where needed with product under test either connected directly to the regulator output or connected to the regulator through a receptacle or terminals connected to the regulator through short distance of adequately sized wiring.

9.1.3 The power source shall be tested:

A. Central Regulator (9.1.3 item A) - At the point on the test station where the product under test is connected.

B. Regulator located at test station (9.1.2 item B) - At the point on the test station or regulator where the product under test is connected, as the short distance of wiring to the regulator is of no consequence to the results.

C. Mobile regulators (9.1.2 item C) - At the point on the test station or regulator where the product under test is connected, as the short distance of wiring to the regulator is of no consequence to the results.

9.1.4 Power source voltage, frequency and harmonic distortion shall be measured.

9.1.5 In the case of 9.1.2 items B and C, if a power regulator's performance specifications are verified by an accredited calibration laboratory and the specifications for voltage stability, frequency stability, and total harmonic distortion comply with the requirements of this operating procedure, it is not necessary to perform the testing in section 9 as long as the power regulator is used within its specifications. The regulator, if used under the condition of 9.1.2 item (a), would need to be tested because the longer distance of wiring could affect conformance with the specifications. Also, there may be more than one test station connected to the branch circuit and, therefore, parallel connection of loads at the same time that may need to be taken into account.

9.1.6 While it is expected that the power source meet the required specifications throughout the duration of any testing performed, measurement of power source characteristics is normally made over a one hour period in each the open circuit and loaded conditions, unless there is reason to believe that measurements made over a longer period is necessary to establish conformance with the intent of the requirements.

9.1.7 Initially, the voltage, frequency (50 or 60 Hz) `and harmonic distortion of the power source shall be measured open circuit over a period of one hour. The voltage shall be adjusted to one of the nominal voltages used for testing, for example 120 V, 230 V, 240 V or 400 V.

A. 中央调节器，通过分支电路走线分布到各个测试场所。

B. 调节器布置在测试场所，受试设备直接与调节器的输出端连接，或者连接在测试场所的插座或接线端子上，而插座或接线端子通过适当尺寸的短电线与调节器连接。

C. 移动的调节器，可根据需要移至实验室的不同测试位置，受试设备直接与调节器的输出端连接，或者连接在插座或接线端子上，而插座或接线端子通过适当尺寸的短电线与调节器连接。

9.1.3　电源测试点：

A. 中央调节器（9.1.3A）—测试点选取在连接受试设备的测试场所。

B. 布置在测试场所的调节器（9.1.2B）—测试点选取在连接受试设备的测试场所或调节器的位置，到调节器的短电线不影响测试结果。

C. 移动调节器（9.1.2C）一测试点选取在连接受试设备的测试场所或调节器的位置，到调节器的短电线不影响测试结果。

9.1.4　应该测量电源的电压、频率和谐波失真度。

9.1.5　对于 9.1.2 中 B 和 C 的情况，如果电源调节器的性能规格已经由认可的校准实验室验证，并且其电压稳定性、频率稳定性、总谐波失真等规格满足本测量程序的要求，那么该电源调节器在其规格范围之内使用，可以不必进行章节 9 的测试环节。对于应用在 9.1.2 中 A 情况中的电源调节器，则需要进行测试。因为长距离的电线会影响电源调节器的性能规格。另外，由于连接到分支电路的可能不止一个测试场所，这种同时连接的并联负载方式也需要测试确认。

9.1.6　尽管我们期望在所有测试过程中电源均符合规范要求，电源特性的测量通常跨越一个小时的时段即可，在开路和负载情况下都是如此，除非有理由相信需要进行更长时间的测试来确认与要求意图的符合性。

9.1.7　首先，在一个小时的时段内对电源的开路电压、频率（50 或 60Hz）和谐波失真进行测试。电压应调整到测试用的标称电压，如：120V，230V，240V 或 400V。

9.1.8 Afterwards, the power source shall be loaded to rated maximum normal resistive load (continuous duty) without readjustment of the power source set in 9.1.4. The voltage, frequency, and harmonic distortion shall be measured again over a period of one hour. The power source shall comply with the requirements throughout this hour.

9.2 Values to be recorded/calculated

9.2.1 Maximum open circuit voltage, $V_{oc,max}$

9.2.2 Minimum open circuit voltage, $V_{oc,min}$

9.2.3 Maximum voltage loaded, $V_{ld,max}$

9.2.4 Minimum voltage loaded, $V_{ld, min}$

9.2.5 Current loaded, $I_{ld, max}$

9.2.6 Voltage nominal, V nom = specified test voltage (e.g. 120 V, 230 V, 240 V)

9.2.7 Maximum frequency open circuit, $F_{oc,max}$

9.2.8 Minimum frequency open circuit, $F_{oc,min}$

9.2.9 Maximum frequency loaded, $F_{ld,max}$

9.2.10 Minimum frequency loaded, $F_{ld, min}$

9.2.11 Maximum harmonic distortion open circuit, THD_{oc}

9.2.12 Maximum harmonic distortion loaded, THD_{ld}

9.1.8　然后，电源应加载到额定最大阻性负载（连续运行）且不进行调整，在一个小时的时段内测量电压、频率和谐波失真度。自始至终电源应符合要求。

9.2　需要记录/计算的值

9.2.1　最大空载电压，$V_{oc,max}$

9.2.2　最小空载电压，$V_{oc,min}$

9.2.3　最大负载电压，$V_{ld,max}$

9.2.4　最小负载电压，$V_{ld,min}$

9.2.5　负载电流，$I_{ld,max}$

9.2.6　额定电压，V_{nom}＝指定测试电压（如：120V，230V，240V）

9.2.7　最大空载频率，$F_{oc,max}$

9.2.8　最小空载频率，$F_{oc,min}$

9.2.9　最大负载频率，$F_{ld,max}$

9.2.10　最小负载频率，$F_{ld,min}$

9.2.11　最大空载谐波失真度，THD_{oc}

9.2.12　最大负载谐波失真度，THD_{ld}

10 RECORDS

10.1 Records shall be made and retained of measurements made, calculated values, location of measurements and conditions of measurements in accordance with the responsibility noted in clause 4.1.3 and required laboratory practice under ISO/IEC 17025. ANNEX 1 (informative) contains a suggested format for recording the data.

10.2 Records of the power distribution system shall include wiring diagrams, identification of voltages, frequencies, number of phases, capacities, fuse/circuit breaker ratings and regulation equipment.

10. 记录

10.1　根据4.1.3条中规定的责任以及依照在ISO/IEC 17025要求下的实验室惯例，应当进行记录并保存测量值、计算值、测试地点和测试条件。附录1（资料性附录）为推荐的数据记录表格。

10.2　配电系统的记录应包括接线图、电压、频率、相数、容量、熔断器/断路器的额定值和调节设备的标识。

ANNEX 1

(Informative)

Date: Tested by (name/signature):

Power Source Stability Test:

Method

Power source stability characteristics were measured in accordance with CTL-OP 110.

Results

Location and characteristics:

Measured Quantity	Value
Voltage nominal, V_{nom} =	
Maximum open circuit voltage, $V_{oc,max}$ =	
Minimum open circuit voltage, $V_{oc,min}$ =	
Current loaded, $I_{ld,\ max}$ =	
Maximum voltage loaded, $V_{ld,max}$ =	
Minimum voltage, $V_{ld,\ min}$ =	
Maximum frequency open circuit, $F_{oc,max}$ =	
Minimum frequency open circuit, $F_{oc,min}$ =	
Maximum frequency loaded, $F_{ld,max}$ =	
Minimum frequency loaded, $F_{ld,\ min}$ =	
Maximum harmonic distortion open circuit, THD_{oc} =	
Maximum harmonic distortion loaded, THD_{ld} =	
Reg V_{oc} = [MAX($V_{oc,max}$ - V_{nom}; V_{nom} - $V_{oc,\ min}$)/V_{nom}] x 100% =	
Reg V_{ld} = [MAX($V_{ld,max}$ - V_{nom}; V_{nom} - $V_{ld,\ min}$)/V_{nom}] x 100% =	
Reg F_{oc} = [MAX($F_{oc,max}$ - F_{nom}; F_{nom} - $F_{oc,\ min}$)/F_{nom}] x 100% =	
Reg F $_{ld}$ = [MAX($F_{ld,max}$ - F_{nom}; F_{nom} - F_{ld}, min)/F_{nom}] x 100% =	

Test Equipment Used

Name	Manufacturer	Model	Range	Last Calibration	Next Calibration
Voltmeter					
Ammeter					
Frequency meter					
THD Analyzer					
Load				N/A	N/A

附录 1

（资料性文件）

日期：　　　　　　　　　　　　　　　　　　试验员（姓名/签字）：

电源稳定性测试：

方　法

依据 CTL－OP 110 进行电源稳定性参数测量。

结　果

地点和特性：________________________________

测定量	数值
额定电压，V_{nom}＝	
最大空载电压，$V_{oc,max}$＝	
最小空载电压，$V_{oc,min}$＝	
电流负载，$I_{ld,max}$＝	
最大负载电压，$V_{ld,max}$＝	
最小负载电压，$V_{ld,min}$＝	
最大空载频率，$F_{oc,max}$＝	
最小空载频率，$F_{oc,max}$＝	
最大负载频率，$F_{ld,max}$＝	
最小负载频率，$F_{ld,min}$＝	
最大空载谐波失真，THD_{oc}＝	
最大负载谐波失真，THD_{ld}＝	
Reg V_{oc}＝［MAX（$V_{oc,max}-V_{nom}$；$V_{nom}-V_{oc,min}$）/V_{nom}］×100％	
Reg V_{ld}＝［MAX（$V_{ld,max}-V_{nom}$；$V_{nom}-V_{ld,min}$）/V_{nom}］×100％	
Reg F_{oc}＝［MAX（$F_{oc,max}-F_{nom}$；$F_{nom}-F_{oc,min}$）/F_{nom}］×100％	
Reg F_{ld}＝［MAX（$F_{ld,max}-F_{nom}$；$F_{nom}-F_{ld,min}$）/F_{nom}］×100％	

使用的测试设备

名称	制造商	型号	量程	最近校准日期	下次校准日期
电压表					
电流表					
频率计					
总谐波失真分析仪					
负载				不适用	不适用

22. Requirements for Traceability of Calibrations and Calibration Intervals

22. 校准溯源性和校准周期的要求

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1 PURPOSE

The purpose of this document is to establish uniform requirements for traceability of calibrations and calibration intervals to ensure consistent and repeatable test results.

2 SCOPE

The requirements contained in this document apply to laboratory equipment required to be calibrated under the requirements of ISO/IEC 17025.

3 DEFINITIONS

Definitions unique to these requirements - None

4 RESPONSIBILITY OF THE LABORATORY

The laboratory shall have procedures in place to ensure that the requirements for traceability of calibrations and calibration intervals are met.

5 APPLICABLE DOCUMENTS

Doc. #	**Title**
ISO/IEC 17025 2nd ed., 2005-05-15	General requirements for the competence of testing and calibration laboratories

6 GENERAL

Requirements given in this document are to be followed to ensure test consistency and repeatability.

7 REQUIREMENTS

7.1 Traceability of Calibrations

7.1.1 Calibrations shall be regarded as being traceable if the calibrations are done by following the requirements of ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories, and by one of the following:

A. The instrument was calibrated by a National Metrology Institute.
B. The instrument was calibrated by an ISO/IEC 17025 accredited calibration laboratory.
C. The instrument was calibrated by an internal or external calibration laboratory assessed on an annual basis, by the CBTL, NCB or responsible department within the CBTL or NCB, and found to comply with the requirements of ISO/IEC 17025.

1. 目的

本文件旨在为校准溯源性和校准周期建立一个统一的要求以确保测试结果的一致性和可重复性。

2. 范围

本文件包含的要求适用于依据 ISO/IEC 17025 要求进行校准的实验室设备。

3. 定义

只适用于这些要求的特殊定义——无。

4. 实验室职责

实验室应具有适当的程序以确保校准溯源性和校准周期的要求得到满足。

5. 适用文件

文件号：ISO/IEC 17025 第二版，2005－05－15。
标题：检测和校准实验室能力的通用要求

6. 通则

应遵照本文件的要求确保测试的一致性和可重复性。

7. 要求

7.1　校准溯源性

7.1.1　如果校准是按照 ISO/IEC 17025《检测和校准实验室能力的通用要求》的要求由下述机构之一完成的，那么校准就应认为是可以溯源的。

A. 设备的校准是由国家计量机构完成的。

B. 设备的校准是由通过 ISO/IEC 17025 认可的校准实验室完成的。

C. 设备的校准是由一个内部的或外部的校准实验室完成的。该实验室需接受来自 CBTL、NCB 或其内部责任部门的年度评审，且被证明符合 ISO/IEC 17025 的要求。

The assessments shall be conducted by a qualified ISO/IEC 17025 assessor or metrologist.

Note to Item (A) – An external calibration laboratory that is not accredited should only be used in the event that an accredited calibration laboratory is not available or practical to use.

Exception to (A), (B) and (C) - For specialized instruments where no accredited calibration laboratory is available, the instrument may be calibrated by the instrument manufacturer provided that the calibration standards used are traceable to national or international units of measure, the traceability chain is identified and an estimation of uncertainty of measurement is included on the calibration certificate.

7.1.2 Calibrations shall be made by an unbroken chain of comparisons to:

A. Units of measure of The International System of Units (SI).
B. Fundamental physical constants.
C. Certified Reference Materials, in the event that (A) and (B) do not exist for the measurement property.

7.2 Calibration Intervals for Test Equipment Requiring Calibration

7.2.1 All test equipment requiring calibration shall undergo an initial calibration before being put into service. Thereafter, the maximum nominal calibration interval shall be:

A. One year for electrical, electronic and mechanical test equipment.
B. Three years for mechanical test equipment made of solid materials not subject to deterioration.
C. As recommended by the manufacturer of the instrument.
D. Test equipment that is "fail safe" in that failure would be evident to a user (with laboratory procedures requiring the user to check the equipment before use) may be put on the status of "Initial Calibration Only (ICO)". Examples of the equipment that can be placed on ICO status are: steel rules, tape measures, weights 4,5 kg or more calibrated to +/-1% tolerance, single piece steel probes greater than or equal to 3 mm diameter with blunt ends, graduate cylinder, thermometers, steel impact balls, steel or plastic probes with no moving parts and sufficient structural integrity so as to not deform.

Note (informative) Additional guidance on the Concept of Initial Calibration Only test equipment can be found in NCSL RP–1 Chapter 8.

这些评审应由具备ISO/IEC 17025资质的评审员或校准人员来实施。

条款A的注：只有当获认可的校准实验室不可用或实际不能使用时，才可以使用没有被认可的外部校准实验室。

A、B、C条款的例外情况：对于特殊的设备，当没有获认可的校准实验室可用时，则只要使用的校准标准可溯源至国家或国际测量单位，该设备可由设备制造商来进行校准。校准证书中应包括溯源链的识别以及测量不确定度的评估。

7.1.2　校准应通过一条连接到下述各项的不间断的比较链来完成：

A. SI国际单位制测量单位；

B. 基础物理常量；

C. 依据测量特性，A和B不存在时，使用有证标准物质。

7.2　有校准要求的测试设备的校准周期

7.2.1　有校准要求的所有测试设备在投入使用前都应进行初始校准，之后，最长的名义校准周期应该为

A. 电子、电气和机械测试设备为一年；

B. 由不易毁坏的固体材料制成的机械测试设备为三年；

C. 设备制造商推荐的校准周期；

D. 如果设备是“故障安全”的，即设备的失效状态对于使用者显而易见（实验室有程序要求使用者在使用前对设备进行检查），可将之处于“只有初始校准（ICO）”状态。可设置为ICO状态的设备举例如下：钢直尺、卷尺、校准允差±1%的4.5千克或以上的砝码、直径大于等于3mm带有钝头的单片钢探针、量筒、温度计、钢制冲击球、具有防止变形的整体结构不带有移动部件的钢制或塑料探针。

注（资料性）：有关ICO测试设备的概念的附加指南可参照NCSL RP－1第8章。

7.2.2 Weights do not need to be calibrated if verified with a calibrated scale before each use. The verification must be documented.

7.2.3 Test equipment that is delicate, subject to frequent usage or severe use conditions shall be assigned shortened calibration intervals (e.g. 6 months, 3 months, weekly, before each use).

7.2.4 Infrequently used test equipment may be assigned the status of "calibrate before use" instead of a periodic calibration.

7.2.5 Calibration intervals may be extended based on the following and the reasons must be documented:

A. Passive electrical test equipment, such as current shunts, current transformers, potential transformers, may be extended to 3 years with good results for the initial calibration period and if not subject to severe use conditions.
B. Weights may be extended to 5 years if there is a laboratory procedure that takes into account usage and has provision for physical examination and/or intermediate checks of the weights.
C. Where there is sufficient calibration data to statistically establish a trend or based on experience of use of the test equipment to assure good measurement results for a longer period.

Note (informative)–Additional guidance on the establishment and adjustment of calibration intervals can be found in NCSL RP-1, Establishment and adjustment of calibration intervals, January 1996.

7.2.2 如果每次使用前都能与已校准的天平进行校验，则砝码就不需要进行校准，但校验应形成文件。

7.2.3 对于使用频率高或对使用条件要求苛刻的精密测试设备，应缩短其校准周期（例如：每 6 个月、3 个月、每周或每次使用前）。

7.2.4 非频繁使用的测试设备可用“使用前校准”的状态来代替定期校准。

7.2.5 基于以下原因校准周期可延长，但其理由必须形成文件：

A. 对于一些无源电气测试设备，例如电流分流、电流互感器、电压互感器，如果按初次校准周期结果良好而且不经受苛刻使用条件，就可将校准周期延长至 3 年。

B. 如果实验室程序充分考虑砝码的使用并且有物理检查和/或期间核查的条款，则砝码的校准周期可以延长至 5 年。

C. 有充分的校准数据可以建立一种统计趋势或基于测试设备的使用经验，在较长周期内能确保良好的测量结果。

注（资料性）：校准周期的建立和调整附加指南可参照 NCSL RP－1，校准周期的建立和调整，1996 年 1 月。

第五章　IECEE CTL 决议

1. CABL 电线电缆

CTL DECISION SHEET

Standard(s):	Sub clause(s):	Sheet n°:
IEC 60227-3 : ed.2.1 IEC 60227-4 : ed.2.1 IEC 60227-5 : ed.2.2 IEC 60227-6 : ed.3.0 IEC 60227-7 : ed.1.1		DSH - 660
Subject: Samples required for all the polyvinyl chloride insulated cables	**Key words:** - Samples - polyvinylchloride insulated cables	Approved at the 45th CTL Plenary Meeting in Prague in 2008

Question:
Please improve the clarity of the table "samples to be selected when testing according to IEC 60227".

Decision:

Please see attachment table 1.

Explanatory Notes:

When a CBTC covers all colours, it may be sufficient to test white and black.
Each sample shall have a length of not less than 50m. In the case of large sizes, shorter lengths may be taken.

"approximately minimum (maximum) cross-section" means the minimum (maximum) cross-section or one specification larger (smaller) than minimum (maximum) cross-section in relevant standards.

"approximately minimum (maximum) number of cores" means the minimum (maximum) number of cores or one specification more (less) than minimum number of cores in relevant standards.

This DSH deletes and replaces DSHs 375 and 556

CTL 决议

<table>
<tr><td>标准：
IEC60227－3：ed. 2. 1
IEC60227－4：ed. 2. 1
IEC60227－5：ed. 2. 2
IEC60227－6：ed. 3. 0
IEC60227－7：ed. 1. 1</td><td>条款号：
—</td><td>决议单号：DSH 660</td></tr>
<tr><td>主题：
聚氯乙烯绝缘电缆检测样品要求</td><td>关键词：
—样品
—聚氯乙烯绝缘电缆</td><td>2008 年布拉格 CTL 第45 届年会批准</td></tr>
<tr><td colspan="3">问题：
请进一步明确“按照 IEC 60227 标准测试的样品选取要求”。
决议：
请见附表 1。
说明：
当 CB 测试证书覆盖样品的所有颜色时，可以仅测试白色和黑色样品。
每件样品长度应不小于 50m，大规格样品可适当减短。
“接近最小（最大）截面”是指最小（最大）截面或与相关标准中最小（最大）截面相差 1 个规格档的截面。
“接近最少（最多）芯数”是指最少（最多）芯数或与标准最少（最多）芯数相差 1 个规格档的芯数。
删除 DSH 375 和 DSH 556 两个决议并由本决议取代。</td></tr>
</table>

Table 1 Samples to be selected when testing according to IEC60227

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colors	Type of cables and cords	Number and size of samples to be tested
60227 IEC 01	All	All	Single-core non-sheathed cable with rigid conductor for general purpose	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60227 IEC 02	All	All	Single-core non-sheathed cable with flexible conductor for general purpose	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60227 IEC 05	All	All	Single-core non-sheathed cable with solid conductor for internal wiring for a conductor temperature of 70℃	1 sample
60227 IEC 06	All	All	Single-core non-sheathed cable with flexible conductor for internal wiring for a conductor temperature of 70℃	1 sample
60227 IEC 07	All	All	Single-core non-sheathed cable with solid conductor for internal wiring for a conductor temperature of 90℃	1 sample
60227 IEC 08	All	All	Single-core non-sheathed cable with flexible conductor for internal wiring for a conductor temperature of 90℃	1 sample
60227 IEC 10	All	All	Light polyvinyl chloride sheathed cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 41	All	All	Flat tinsel cord	1 sample
60227 IEC 43	All	All	Cord for indoor decorative lighting chains	1 sample
60227 IEC 52	All	All	Light polyvinyl chloride sheathed cord	1 sample round, 1 sample flat

表 1　按照 IEC 60227 标准检测的样品选取要求

型号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60227 IEC 01	所有	所有	一般用途单芯硬导体无护套电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60227 IEC 02	所有	所有	一般用途单芯软导体无护套电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60227 IEC 05	所有	所有	内部布线用导体温度为 70℃的单芯实心导体无护套电缆	样品 1 件
60227 IEC 06	所有	所有	内部布线用导体温度为 70℃的单芯软导体无护套电缆	样品 1 件
60227 IEC 07	所有	所有	内部布线用导体温度为 90℃的单芯实心导体无护套电缆	样品 1 件
60227 IEC 08	所有	所有	内部布线用导体温度为 90℃的单芯软导体无护套电缆	样品 1 件
60227 IEC 10	所有	所有	轻型聚氯乙烯护套电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60227 IEC 41	所有	所有	扁形铜皮软线	样品 1 件
60227 IEC 43	所有	所有	户内装饰照明回路用软线	样品 1 件
60227 IEC 52	所有	所有	轻型聚氯乙烯护套软线	圆形样品 1 件， 扁形样品 1 件

Table 1 Samples to be selected when testing according to IEC60227 (continued)

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colours	Type of cables and cords	Number and size of samples to be tested
60227 IEC 53	All	All	Ordinary polyvinyl chloride sheathed cord	For round: 1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores For flat: 1 sample
60227 IEC 56	All	All	Heat-resistant light PVC-sheathed cord for a maximum conductor temperature of 90℃	1 sample round, 1 sample flat
60227 IEC 57	All	All	Heat-resistant ordinary PVC-sheathed cord for a maximum conductor temperature of 90℃	For round: 1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores For flat: 1 sample
60227 IEC 71f	All	All	Flat polyvinyl chloride sheathed lift cable and cable for flexible connections	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 71c	All	All	Circular polyvinyl chloride sheathed lift cable and cable for flexible connections	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores

（续）

型号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60227 IEC 53	所有	所有	普通聚氯乙烯护套软线	对于圆形： 接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件 对于扁形： 样品1件
60227 IEC 56	所有	所有	导体最高温度为90℃的耐热轻型聚氯乙烯护套软线	圆形样品1件， 扁形样品1件
60227 IEC 57	所有	所有	导体最高温度为90℃的耐热普通聚氯乙烯护套软线	对于圆形： 接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件 对于扁形：样品1件
60227 IEC 71f	所有	所有	扁形聚氯乙烯护套电梯电缆和挠性连接用电缆	接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件
60227 IEC 71c	所有	所有	圆形聚氯乙烯护套电梯电缆和挠性连接用电缆	接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件

Table 1 Samples to be selected when testing according to IEC60227 (continued)

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colours	Type of cables and cords	Number and size of samples to be tested
60227 IEC 74	All	All	Oil resistance, polyvinyl chloride sheathed, screened flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60227 IEC 75	All	All	Oil resistance, polyvinyl chloride sheathed, unscreened flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores

（续）

型号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60227 IEC 74	所有	所有	耐油聚氯乙烯护套屏蔽软电缆	接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件
60227 IEC 75	所有	所有	耐油聚氯乙烯护套非屏蔽软电缆	接近最多芯数和最小截面样品1件， 接近最少芯数和最大截面样品1件

CTL DECISION SHEET

Standard(s):	**Sub clause(s):**	**Sheet n°:**
IEC 60245-3 : am1 ed.2.0 IEC 60245-4 : ed.2.2 IEC 60245-5 : am1 ed.2.0 IEC 60245-6 : am1 am2 ed.2.0 IEC 60245-7 : am1 ed.1.0 IEC 60245-8 : am1 ed.1.0		DSH 661
Subject: Samples required for all the rubber insulated cables	**Key words:** - Samples - rubber insulated cables	**Approved at the 45th CTL Plenary Meeting in Prague in 2008**

Question:
Please improve the clarity of the table "samples to be selected when testing according to IEC 60245" .

Decision:

Please see attachment table 1.

Explanatory Notes:
When a CBTC covers all colours it may be sufficient to test white and black.
Each sample shall have a length of not less than 50m. In the case of larger sizes, shorter lengths may be taken.

"approximately minimum (maximum) cross-section" means the minimum (maximum) cross-section or one specification larger (smaller) than minimum (maximum) cross-section in relevant standards.

"approximately minimum (maximum) number of cores" means the minimum (maximum) number of cores or one specification more (less) than minimum number of cores in relevant standards.

CTL 决议

标准： IEC60245－3：am1 ed. 2. 0 IEC60245－4：ed. 2. 2 IEC60245－5：am1 ed. 2. 0 IEC60245－6 ：am1 am2 ed. 2. 0 IEC60245－7：am1 ed. 1. 0 IEC60245－8：am1 ed. 1. 0	条款号： —	决议单号：DSH 661
主题： 橡皮绝缘电缆测试样品要求	关键词： －样品 －橡皮绝缘电缆	2008 年布拉格 CTL 第 45 届年会批准

问题：

请进一步明确“按照 IEC 60245 标准测试的样品选取要求”。

决议：

请见附表 1。

说明：

当 CB 测试证书覆盖样品的所有颜色时，可仅测试白色和黑色样品。

每件样品长度应不小于 50m，大规格样品可适当减短。

“接近最小（最大）截面”是指最小（最大）截面或与相关标准中最小（最大）截面相差 1 个规格档的截面。

“接近最少（最多）芯数”是指最少（最多）芯数或指比相关标准最少芯数多（少）1 个规格档的芯数。

Table 1 Samples to be selected when testing according to IEC 60245

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colours	Type of cables and cords	Number and size of samples to be tested
60245 IEC 03	All	All	Heat resistant silicon insulated cable for a conductor temperature of maximum 180	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60245 IEC 53	All	All	Ordinary tough rubber sheathed cord	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 57	All	All	Ordinary polychloroprene or other equivalent synthetic elastomer sheathed cord	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 66	All	All	Heavy polychloroprene or other equivalent synthetic elastomer sheathed flexible cable	1 sample of approximately minimum cross-section and approximately maximum number of cores, 1 sample of approximately maximum cross-section and approximately minimum number of cores
60245 IEC 58 60245 IEC 58f	All	All	Polychloroprene or equivalent synthetic elastomer sheathed cable for decorative chains	1 sample round, 1 sample flat
60245 IEC 70	All	All	Braided lift cable for normal use	1 sample of approximately maximum number of cores

表 1　按照 IEC 60245 标准检测的样品选取要求

型号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60245 IEC 03	所有	所有	导体最高工作温度为 180℃的耐热硅橡胶绝缘电缆	接近最小截面样品 1 件， 接近最大截面样品 1 件
60245 IEC 53	所有	所有	普通强度橡套软线	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 57	所有	所有	普通氯丁或其他相当的合成弹性体橡套软线	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 66	所有	所有	重型氯丁或其他相当的合成弹性体橡套软电缆	接近最多芯数和最小截面样品 1 件， 接近最少芯数和最大截面样品 1 件
60245 IEC 58 60245 IEC 58f	所有	所有	装饰回路用氯丁或其他相当的合成弹性体橡套电缆	圆形样品 1 件， 扁形样品 1 件
60245 IEC 70	所有	所有	编织电梯电缆	接近最多芯数样品 1 件

Table 1 Samples to be selected when testing according to IEC 60245 (continued)

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colours	Type of cables and cords	Number and size of samples to be tested
60245 IEC 74	All	All	Tough rubber sheathed lift cable for normal use	1 sample of approximately maximum number of cores
60245 IEC 75	All	All	Polychloroprene or other equivalent synthetic elastomer sheathed lift cable for normal use	1 sample of approximately maximum number of cores
60245 IEC 81	All	All	Rubber sheathed arc welding electrode cable	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60245 IEC 82	All	All	Polychloroprene or other equivalent synthetic elastomer sheathed arc welding electrode cable	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60245 IEC 04	All	All	Heat resistant ethylene-vinyl acetate rubber or other equivalent synthetic elastomer insulated, single-core, non-sheathed 750V cable for a maximum conductor temperature of 110℃	1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section 1 sample with solid conductor, 1 sample with strand conductor
60245 IEC 05	All	All		1 sample of approximately minimum cross-section, 1 sample of approximately maximum cross-section
60245 IEC 06	All	All	Heat resistant ethylene-vinyl acetate rubber or other equivalent synthetic elastomer insulated, single-core, non-sheathed 500V cable for a maximum conductor temperature of 110℃	1 sample
60245 IEC 07	All	All		1 sample
60245 IEC 86	All	All	Rubber insulated and sheathed cords for applications requiring high flexibility	1 sample of approximately minimum cross-section and approximately maximum number of cores

（续）

<table>
<tr><th>型号</th><th>芯数和标称截面</th><th>颜色</th><th>电缆和软线的类型</th><th>样品数量和规格要求</th></tr>
<tr><td>60245 IEC 74</td><td>所有</td><td>所有</td><td>高强度橡套电梯电缆</td><td>接近最多芯数样品 1 件</td></tr>
<tr><td>60245 IEC 75</td><td>所有</td><td>所有</td><td>氯丁或其他相当的合成弹性体橡套电梯电缆</td><td>接近最多芯数样品 1 件</td></tr>
<tr><td>60245 IEC 81</td><td>所有</td><td>所有</td><td>橡套电焊机电缆</td><td>接近最小截面样品 1 件，
接近最大截面样品 1 件</td></tr>
<tr><td>60245 IEC 82</td><td>所有</td><td>所有</td><td>氯丁或其他相当的合成弹性体橡套电焊机电缆</td><td>接近最小截面样品 1 件，
接近最大截面样品 1 件</td></tr>
<tr><td>60245 IEC 04</td><td>所有</td><td>所有</td><td rowspan="2">导体最高温度为 110℃的耐热乙烯—乙酸乙烯酯橡皮或其他相当的合成弹性体绝缘、单芯、无护套 750V 电缆</td><td>接近最小截面样品 1 件，
接近最大截面样品 1 件，
其中 1 件样品应为实心导体，
1 件样品应为绞合导体</td></tr>
<tr><td>60245 IEC 05</td><td>所有</td><td>所有</td><td>接近最小截面样品 1 件，
接近最大截面样品 1 件</td></tr>
<tr><td>60245 IEC 06</td><td>所有</td><td>所有</td><td rowspan="2">导体最高温度为 110℃的耐热乙烯—乙酸乙烯酯橡皮或其他相当的合成弹性体绝缘、单芯、无护套 500V 电缆</td><td>样品 1 件</td></tr>
<tr><td>60245 IEC 07</td><td>所有</td><td>所有</td><td>样品 1 件</td></tr>
<tr><td>60245 IEC 86</td><td>所有</td><td>所有</td><td>橡皮绝缘和护套特软电线</td><td>接近最多芯数和最小截面样品 1 件</td></tr>
</table>

Table 1 Samples to be selected when testing according to IEC 60245 (continued)

Code designation concerned	Number of cores and nominal cross-sectional areas concerned	Colours	Type of cables and cords	Number and size of samples to be tested
60245 IEC 88	All	All	Cross-linked PVC(XLPVC) insulated and sheathed cords for applications requiring high flexibility	1 sample of approximately minimum cross-section and approximately maximum number of cores
60245 IEC 89	All	All	EPR insulated and braided cord for applications requiring high flexibility	1 sample of approximately minimum cross-section and approximately maximum number of cores

（续）

型号	芯数和标称截面	颜色	电缆和软线的类型	样品数量和规格要求
60245 IEC 88	所有	所有	交联聚氯乙烯（XLPVC）绝缘和护套特软电线	接近最多芯数和最小截面样品1件
60245 IEC 89	所有	所有	乙丙橡皮（EPR）绝缘编织特软电线	接近最多芯数和最小截面样品1件

2. CONT 家用电器的自动控制器

CTL DECISION SHEET

Standard: IEC 60730-1:1999 (3rd ed.)+ A1:2003 + A2:2007	**Sub clause(s):** H.8.1.10.1	**Sheet n°:** **DSH 630**
Subject: Measure of "touch current" passing through protective impedance	**Key words:** - protective impedance - accessible parts - hazardous live parts	**Approved by the 45th CTL Plenary meeting 2008**

Question:

In measuring current passing between accessible parts connected to hazardous live parts via protective impedance, the procedure stated in the standard is the following (sub-clause H.8.1.10.1):

"Voltages and currents are measured between a single accessible part (or any combination of such parts) and either pole of the supply source."

In a control to be incorporated in appliances where parts at extra-low voltage are connected to earth (PELV circuit connected to live parts through protective impedance), investigation on touch current shall be made against both poles of the supply source.

Making measurement of the touch current between an accessible PELV part and the line may result in stressing those components placed between protective extra-low voltage and the earthed reference.. The result will be a short circuiting of these weak components and applying 230 V, ac directly to the measuring network. In this case the major part of the current does not pass through the protective impedance and the peak current will be higher than 0,7 mA (peak value) which constitutes a failure of the test

Is this the correct methodology to follow?

Decision:

Clause H.8.1.10.1 of IEC 60730-1 addresses protection against electric shock due to a non-isolated circuit and therefore, the reference point shall be to the earthed (neutral) conductor rather than "either pole of the supply". This is consistent with the text of clause 5.1.4 of IEC 60950-1.

Explanatory notes:

CTL/ETF4 agrees that the measuring circuits and test methodology in IEC 60990 are appropriate to address the intent of this sub-clause.We shall not adopt this methodology in practice, until IEC 60730-1 makes the appropriate changes.

CTL 决议

标准： IEC 60730－1：1999（3rd ed.） ＋A1：2003＋A2：2007	条款号： H.8.1.10.1	决议单号：DSH630
主题： 测量通过保护性阻抗的“接触电流”	关键词： －保护性阻抗 －可触及部件 －危险的带电部件	由 2008 年 CTL 第 45 次全体会议通过

问题：

在测量由保护性阻抗连接的可触及零部件与危险的带电零部件之间通过的电流时，以下（条款号 H.8.1.10.1）为标准中提及的步骤：

“电压和电流是在单一可触及零部件（或这类零部件的任意组合）与电源的任意一极之间测量的。”

控制器需要装入那些特低电压零部件接地的器具时（保护性特低电压线路经由保护性阻抗与带电零部件连接），针对电源的两级都要进行接触电流的测量。

在可触及的保护性特低电压部件与电源线之间进行接触电流的测量时，可能致使那些放置在保护性特低电压与参考接地之间的零部件受到应力作用。结果将是导致这类较弱的零部件短路，从而将交流 230V 电压直接施加到测量网络上。在这样的情况下，绝大部分的电流并未流过保护性阻抗，并且峰值电流将高于 0.7mA（峰值），从而导致测试失败。

这样的方法是否正确可行？

决议：

IEC 60730－1 条款 H.8.1.10.1 指出了在防护由于非隔离回路导致的触电时，参考点应该是接地的（中性）导体，而非“电源的任意一极”。这与 IEC 60950－1 条款 5.1.4 的内容是一致的。

说明：

CTL/ETF4 同意 IEC 60990 中的测量回路和测试方法恰当地指明了这个条款的目的。在 IEC60730－1 做出恰当的更改前，我们不应在实际运用中采用这个方法。

CTL DECISION SHEET

Standard:	**Sub clause(s):**	**Sheet n°:**
IEC 60730-1:1999 (3rd ed.)+ A1:2003 + A2:2007	20.2.2	**DSH-657**
Subject: Characterizing the pollution degree of the micro-environment within a sealed device that has switching contacts	**Key words:** - pollution degree - switching contacts	**Decision approved by the 46th CTL plenary meeting 2009**

Question:

Clause 20.2.2 of IEC 60730-1 states that creepage distances for operational insulation shall be as specified in table 20.4 based on the material group and the pollution degree. What is the pollution degree of the micro-environment within a sealed control that has switching contacts?

Example: Bimetal temperature sensing device.

IEC 60730-2-9 does not give any additional guidance.

Even though the micro-environment is sealed (by construction) from influence by the external environment, the pollution situation can be conductively contaminated due to ionization of the contact material and out-gassing of the plastic parts that may be near the switching mechanism.
This is very similar to sealed relays covered under IEC 61810-1. In this standard, creepage distances inside a relay are specified in accordance with pollution degree 2.

Decision:

For controls, an endurance test and a high voltage test in combination are required.
If sealed contacts of a control have passed the endurance test and the high voltage test, it could be assumed that the pollution and the ionized gases in the sealed control does not influence the creepage and clearances of the control. Therefore pollution degree 2 in accordance to Annex N (normative) of IEC 60730-1 could be defined.

Explanatory notes:

Itis not the task of CTL to modify standards or to amend standards. Therefore it is not possible to decide to apply Annex L of IEC 61058-1 for the problem mentioned.
In principle the decision follows the present practice but is in line with Annex L of IEC 61058-1.

In Europe this problem has been discussed by CLC/TC 72 of CENELEC. With document CLC/prTR 50455 "List of interpretations on EN 60730 series" (=IEC 60730) it has been defined:

CTL 决议

标准： IEC 60730－1：1999（3rd ed.） ＋A1：2003＋A2：2007	条款号： 20.2.2	决议单号： DSH－657
主题： 定义带有开关触点的密封设备内部微环境的污染等级	关键词： －污染等级 －开关触点	2009 年 CTL 第 46 次全体会议批准

问题：

IEC 60730－1 条款 20.2.2 中提到：工作绝缘的爬电距离应该由表 20.4 中的材料组别和污染等级来确定。那么一个含有开关触点的密封控制器的内部微环境的污染等级是如何确定的呢？

例如：双金属温度敏感装置

IEC 60730－2－9 没有给出任何附加说明。

尽管微环境由于密封（结构上的）而免受外部环境的影响，然而由于触点材料的离子化和开关机构附近的塑料部件的放气，可能导致形成导电性污染。

这和 IEC 61810－1 覆盖的密封继电器非常相似。在此标准中，规定了继电器内部的爬电距离与污染等级 2 相一致。

决议：

对于控制器，必须进行耐久性试验和耐高压试验。

如果控制器的密封触点已经通过了耐久性试验和耐高压试验，那么就认为密封控制器的污染和离子化的气体不会影响控制器的爬电距离和电气间隙。那么就可以定义与 IEC 60730－1 附录 N（标准的附录）相一致的污染等级 2。

说明：

CTL 的任务不是修改或修订标准。因此不能决定采用 IEC 61058－1 的附录 L 去解决上面提及的问题。

原则上这项决议与实际操作相符，并且与 IEC 61058－1 的附录 L 一致。

在欧洲，这个问题已经由 CENELEC 的 CLC/TC 72 讨论了。在 CLC/prTR 50455 文档中的“EN 60730 系列（＝IEC 60730）说明清单”中已经有以下定义：

>>>
08/01/19/11.1 *Paris, November 2004, TC72/Sec0189/RM, item 11.1*

EN 60730-1: 2000, Automatic electrical controls for household and similar use - Part 1: General requirements Annex N

'Conductive pollution described in Subclause N.1 note 2 should be considered as pollution degree 2 unless the area is affected by other pollution, in which case the pollution degree corresponding to the other pollution applies.
If this interpretation is not accepted, then controls which previously passed according to the requirements for operational insulation of the previous edition may not meet the requirements for pollution degree 3 of this edition.'
<<<
At present this subject is under discussion of IEC/TC 72. So this PDSH is only temporarily.

（续）

>>>
08/01/19/11.1　巴黎，2004年11月，TC72/Sec0189/RM，项目11.1
EN 60730－1：2000，家用和类似用途自动控制器
第一部分：通用要求
附录N

“应该将条款N.1的注释2中描述的导电性污染视作污染等级2，除非该区域受到其他污染的影响，在这种情况下应该采用与其他污染相当的污染等级。

如果这个解释不被接受，那么在之前的版本中已经通过了工作绝缘要求的控制器可能不符合这个版本的污染等级3的要求。”

<<<

IEC/TC 72目前正在讨论此事。此决议表只是暂时性的。

3. HOUS 家用及类似用途设备

CTL DECISION SHEET

Standard(s): IEC 60335-2-23:2003	Sub clause(s): 25.14	DSH - 622
Subject: Cord flexing test for Hand-held appliance	Key words: - Supply cord - Direction to be flexed	Approved by the 45th CTL Plenary meeting 2008

Question:

What is the correct way for flexing hand-held appliances according to second paragraph of sub-clause 25.14 of IEC60335-2-23?

Is the Figure 1 correct? It is the method specified in the standard?

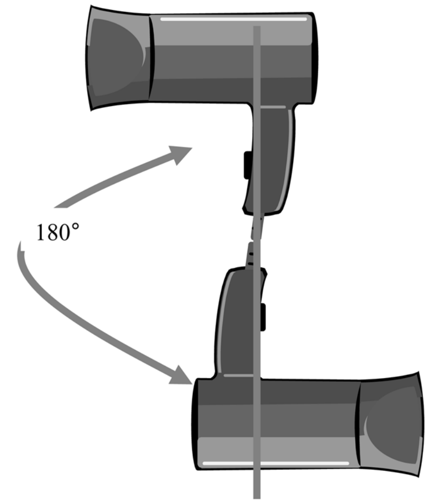


Figure 1

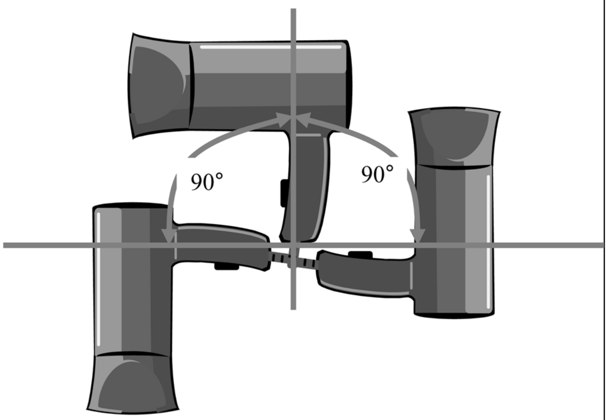


Figure 2

Figure 1:Flexing only one direction from the vertical position through an angle of 180°and back to the original position.

Figure 2:Flexing both direction (90°Right side + 90°Left side = 180°)

We hear some laboratories take the way of the Figure 1 and others, Figure 2. Therefore, clarification is needed.

Decision:

The test shall be conducted as specified in Figure 1 because the test is simulated with the power supply cord twisted around the appliances when storing.

CTL 决议

标准： IEC 60335-2-23：2003	条款号： 25.14	决议单号： DSH-622
主题： 手持式器具的软线弯曲试验	关键词： —电源软线 —弯曲方向	2008 年 45 届 CTL 全体会议批准

问题：

IEC 60335-2-23 中 25.14 条第二段对手持式器具的弯曲试验，什么方法是正确的？

图 1 是否正确？这是不是标准指定的方法？

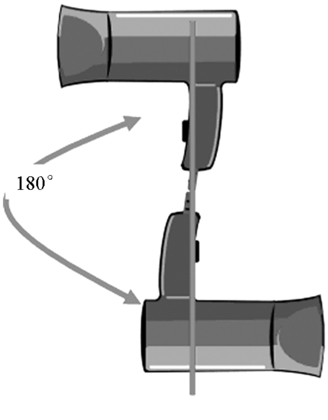


图 1

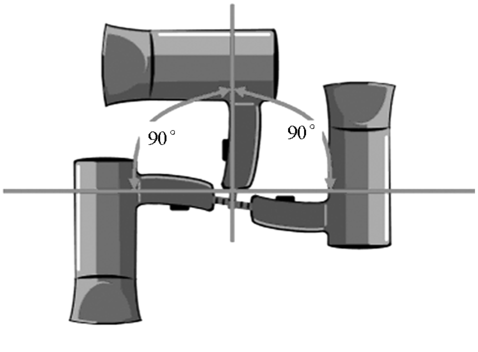


图 2

图 1：仅从垂直位置向一个方向弯曲 180°并回到原位。

图 2：向两个方向弯曲（向右 90°＋向左 90°＝180°）。

我们听说一些实验室使用图 1 的方法，另一些使用图 2 的方法，因此，需要明确。

决议：

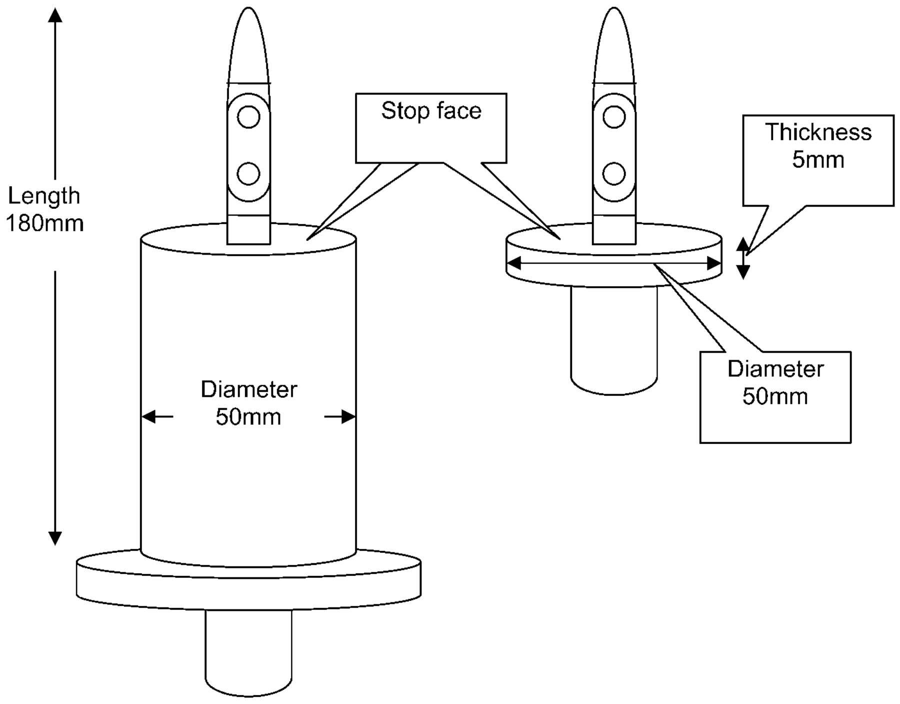
该实验应按照图 1 进行，因为该试验是模拟存放时电源线缠绕在器具上的情况。

CTL DECISION SHEET

Standard(s)- **IEC 60335-1:2001**	**Sub clause(s):** **20.2**	**DSH 623**
Subject: **Test probe to check the protection for moving parts**	**Key words:** **- Test probe** **- Circular stop face**	**Approved by the 45th CTL Plenary Meeting 2008**

Question:
Which test probe is correct to check the protection for moving parts according to sub-clause 20.2?

Figure 1 Figure 2

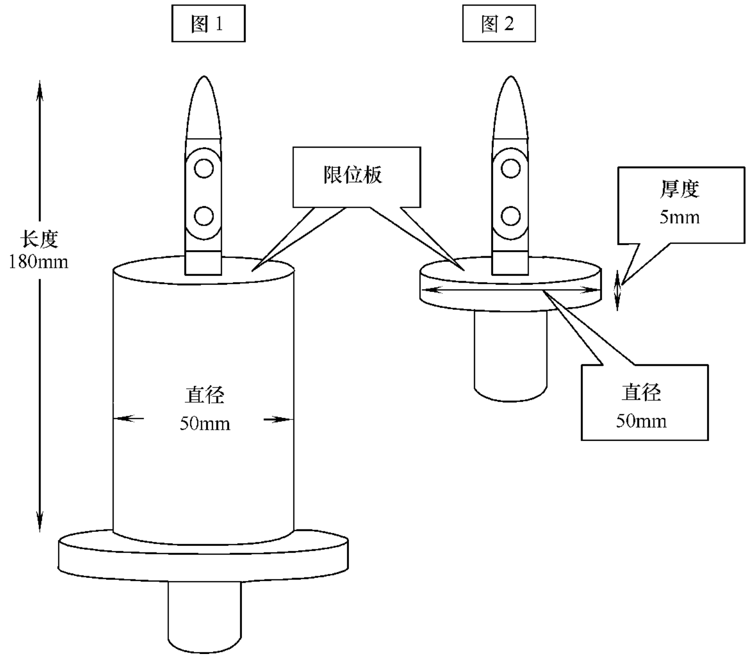


CTL 决议

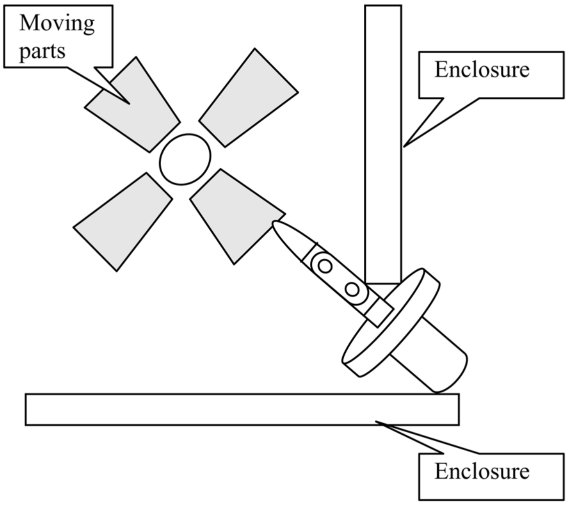
标准： IEC 60335-1：2001	条款号： 20.2	决议单号： DSH 623
主题： 用于检查运动零部件防护的试验探棒	关键词： —试验探棒 —圆形限位板	2008 年第 45 次 CTL 全体会议批准

问题：

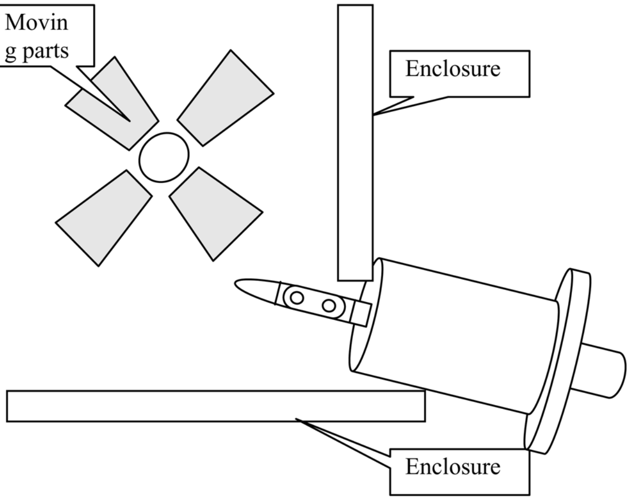
依据条款 20.2，哪种试验探棒适合去检查运动零部件的防护？



Rationale:
The clarification of the length of the stop face is necessary, because, it influences the test result in the following case.



Non-conformity

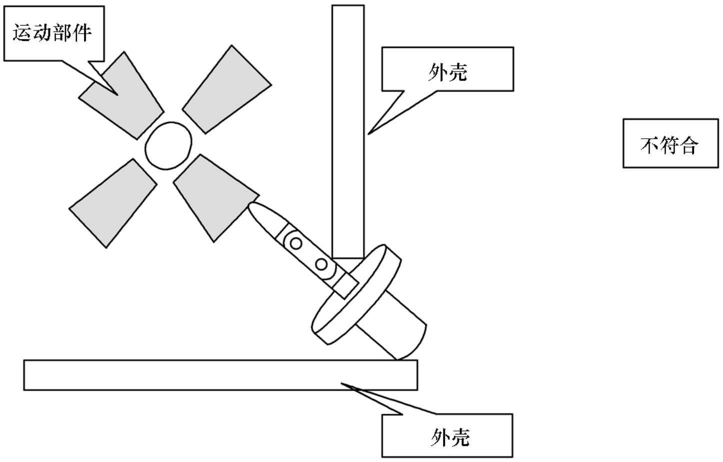


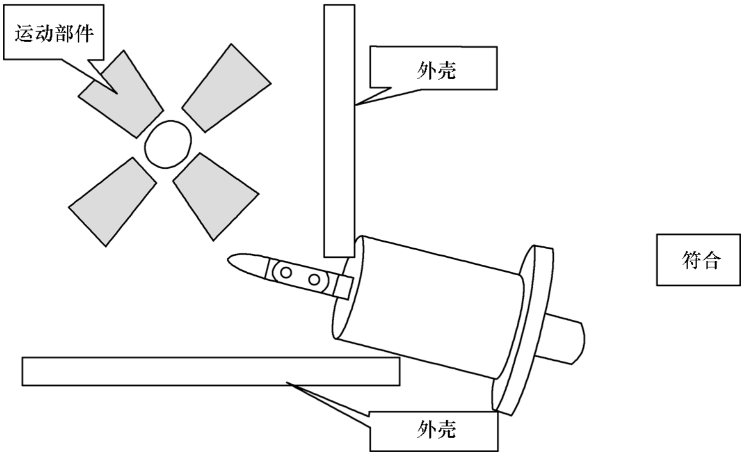
Conformity

Decision:
Figure 1 is used for the test according to sub-clause 20.2 based on modified test probe B of 61032(1997) +Corrigendum1 (2003).

基本原因：

对于限位板长度的理解说明是必要的。因为，在下列情况下，这会影响试验的结果。



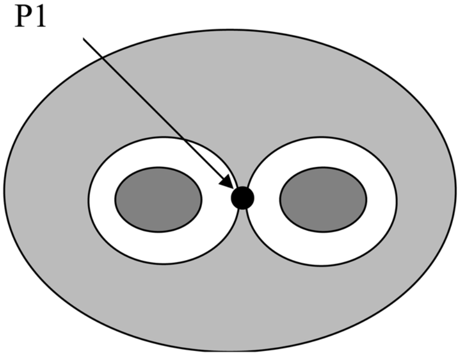


决议：

根据条款 20.2，图 1 适用于本试验。该条款基于 IEC 61032（1997）＋修订件 1（2003）中修改的试验探棒 B。

CTL DECISION SHEET

<table>
<tr><td>Standard(s):
IEC 60335-1:2001</td><td>Sub clause(s):
Table 3 of 11 and
Table 9 of 19</td><td>DSH 625</td></tr>
<tr><td>Subject:
Part to be measured for the temperature of insulation of the supply cord</td><td>Key words:
- Insulation
- Temperature to be measured</td><td>Approved by the CTL in the 45th meeting 2008</td></tr>
<tr><td colspan="3">Question: What part should be measured for determining the temperature rise required for “Insulation of the supply cord” in Table 3 and 9 of Clause 11 and 19 respectively in the following drawing?



Red colored: Current carrying part
White colored: Insulation
Green colored: Sheath

<u>Cross Sction of Supply cord</u>

Decision:

P1 shall be measured for the test of Clause 11 at the point of entranceway (separation point) of the supply cord inside the appliance.
For the test of Clause 19, also P1 shall be measured however, it shall be highest point of temperature closest to the external surface of the appliance.

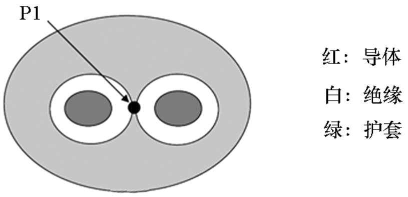
Explanatory notes:
In general, the maximum temperature rise of the insulation of the power supply cord is obtained for both cases at the point of entranceway in the appliance.
However, in the test of Clause 19, appreciable reaction resulting directly from the test, such as ignition of surroundings is mainly regarded rather than the deterioration of insulation between wires for long term use regarded in the test of Clause 11.</td></tr>
</table>

CTL 决议

标准： IEC 60335-1：2001	条款号： 11 章表 3 和 19 章表 9	决议单号： DSH 625
主题： 电源软线绝缘温度的测试部位	关键词： —绝缘 —温度测试	2008 年 CTL 第 45 次会议批准通过

问题：

下图中哪个部分是需要测试条款 11 和 19 所分别对应的表 3 和表 9 所规定的“电源软线绝缘”温升的？



电源软线截面

决议：

根据标准 11 章应在电源软线进入器具的点（分叉处）测量 P1 。

对于标准 19 章，P1 点也应该被测试，但是，应该测试最接近器具外表面温度最高点的温升。

说明：

对于两种情况来说，电源软线绝缘的最高温升通常都在器具的入口处获得。

然而，在第 19 章，更加关注直接从中获得的明显的反应，例如周边的燃烧，而非 11 章更关注的由于长期使用而导致导线间绝缘材料的恶化。

CTL DECISION SHEET

<table>
<tr><td>Standard(s):
IEC 60335-1:2001</td><td>Sub clause(s):
Table 9 of 19</td><td>DSH 626</td></tr>
<tr><td>Subject:
Temperature limit of insulation of the supply cord in Clause 19</td><td>Key words:
- Temperature limit
- Supply cord with T marking</td><td>Approved by the CTL in the 45th meeting 2008</td></tr>
<tr><td colspan="3">Question: Isn’t it necessary to discriminate the limit for Insulation of the supply cord in Table 9 of 19 between those with T marking and without T marking?

Decision:
TC 61 recommendation shall be referred as follows:

- Insulation of the supply cord
without T marking, or with T marking up to 75°C 150K
- Insulation of the supply cord
with T marking above 75°C..T+75K

Explanatory notes:
The enquiry was originated based on the decision for agenda item 6a of 61/3211/RM and made according to 61/3114A/INF.</td></tr>
</table>

CTL 决议

标准： IEC 60335-1：2001	条款号： 19 章表 9	决议单号： DSH 626
主题： 19 章中关于电源软线绝缘温升的限值	关键词： —温升限值 —带 T 标志的电源软线	2008 年 CTL 第 45 次会议批准

问题：

是否一定需要区分 19 章表 9 中所规定的带 T 标志的和不带 T 标志的电源软线绝缘的限值？

决议：

TC61 建议如下：

—电源软线绝缘

不带 T 标志，或者带 T 标志小于等于 75℃………150K

—电源软线绝缘

带 T 标志高于 75℃……………………　……………T＋75K

说明：

这个问题源自 61/3211/RM 第 6a 项的决议，根据 61/3114A/INF 提出。

CTL DECISION SHEET

Standard(s)-: **IEC 60335-1:2001**	**Sub clause(s): 21.2 and 29.3**	**DSH 627**
Subject: **Clearance, creepages distances and solid insulation**	**Key words:** **Thickness of solid insulation**	**Approved by the CTL in the 45th meeting 2008**

Question:

Sub-clause 29.3 states the requirements for the thickness of solid insulation do not apply to inaccessible insulation providing the other requirements stated within the sub-clause are met.
The question is about a product where a thin insulation sheet used within the product met the requirements of the standard for inaccessible insulation once the product had been installed. However, during installation the inaccessible insulation is accessible and, although electrically the insulation meets the requirements, mechanically we found it could be easily damaged.
The product is an instantaneous water heater that is permanently plumped into the water supply and electrically connected to fixed wiring. A professional competent person normally installs the product.
The question is if this insulation is adequate even if it can easily be accidentally damaged but meets the requirements of the standard if it is not considered an accessible part.

Decision:

Taking into account the definition of accessible part (3.6.3) and the test of 21.2, if there is a risk of insulation damage, the scratch test shall be performed on the insulation which is accessible during installation. When verifying if it can be easily damage, instruction given as required by sub-clause 7.12.1 is also taken into account.

Explanatory notes:

The same decision (n.376) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-1：2001	条款号： 21.2 和 29.3	决议单号： DSH627
主题： 电气间隙、爬电距离和固体绝缘	关键词： 一固体绝缘的厚度	2008 年 CTL 全会批准通过

问题：

在条款 29.3 中提到，如果在该条款中的其他要求被满足，那么对固体绝缘厚度的要求不适用于不易触及的绝缘。

这个问题是关于一个内部使用了薄绝缘垫的产品，该产品安装完毕后满足标准对不易触及绝缘的要求，然而，在安装过程中，可触及那些安装后不易触及的绝缘，虽然该绝缘的电气强度符合要求，但机械强度易被破坏。

这个产品是快热式热水器，该器具永久性地连接到水源，电气连接到固定布线。通常由具有专业资格的人员进行安装。

问题是这个绝缘是否充分，即使它能轻易地被破坏，但是如果不被认为是易触及零部件则符合标准要求。

决议：

考虑到易触及零部件的定义（3.6.3）和 21.2 的测试，如果存在绝缘损坏的危险，刮蹭试验必须在安装过程中在易触及的绝缘表面进行。如果证实易被破坏，应考虑条款 7.12.1 要求进行说明。

说明：

同样的决议（n.376）已经列在 OSM/HA 决议清单上。

CTL DECISION SHEET

Standard(s)-: IEC 60335-2-7:2002	Sub clause(s):11.7	DSH 628
Subject: Heating	Key words: Loading	Approved by the CTL in the 45th meeting 2008

Question:
According to sub-clause 11.7 of part 2-7, appliances incorporating a programmer are operated with the program that results in the highest temperature rise.
Sub-clause 3.1.9 requires the use of 50% of the load if this gives higher power input or current.
Some new fully electronic programmers of washing machines automatically perform different programs when half a load is used even if the program selected is the same used for full load.
The difference between the programs, automatically selected by the appliance, do not allows to comply the requirements of 11.7 and 3.1.9 at the same time (worse load and most unfavourable program) in such a way that using the two possibilities the limits may be exceeded in one case and not in the other.
The question is how to perform clause 11 in this case.

Decision:
If the power input or current is higher when only 50% of the textile material is used, the appliance is operated with this load instead if this gives more unfavourable conditions than the full load during the test of Clause 11.

Explanatory notes:
The above decision was extracted from the draft amendment of IEC60335-2-7(61/3358/CDV)

CTL 决议

标准： IEC 60335-2-7：2002	条款号： 11.7	决议单号： DSH 628
主题： 发热	关键词： 一负载	2008 年 CTL 第 45 届会议批准

问题：

根据 2-7 部分的 11.7 条，带有程序控制器的器具在引起最高温升的程序下运行控制。

3.1.9 条要求使用 50％的负载，如果这时输入功率或电流更高。

一些新型的全电子程序控制的洗衣机，即使选择和满载时相同的程序，当使用一半负载时将自动执行不同的程序。

由器具自动选择程序而导致的不同，使 11.7 和 3.1.9 的要求（最大负载和最不利程序）不能同时被满足，而两种可能性使限值可能在一种情况下超标而另一种情况下不超标。

问题是这种情况下如何进行 11 章的测试。

决议：

在第 11 章中测试时，如果在仅使用 50％的织物时输入功率或电流更高，而且此负载比使用全负载时提供了更不利的条件，则器具用此负载试验。

说明：

以上决议摘自 IEC 60335-2-7 修订件草案（61/3358/CDV）。

CTL DECISION SHEET

Standard(s)-: IEC 60335-2-30:2002	Sub clause(s): 5	DSH 629
Subject: General conditions for the tests	Key words: Stationary radiant room heaters	Approved by the CTL in the 45th meeting 2008

Question:
Testing a series of stationary radiant room heaters of different size, is it correct to test the heater with the lowest and highest input and the one with highest input/m²?
If the power input/ m² is the same for all in a series, is it correct to test the one with highest input only?

Decision:
Yes, both statements are correct, but it is necessary to evaluate construction and components used to determine the correct family representative. The evaluation shall be made by the body A and it shall be explained in the test report.

Explanatory notes:
The same decision (n.388) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-2-30：2002	条款号： 5	决议单号： DSH 629
主题： 试验的一般条件	关键词： 一驻立式辐射式室内加热器	2008 年第 45 届 CTL 会议批准

问题：

当测试一系列不同尺寸的驻立式辐射式室内加热器时，测试输入功率最大和最小以及每平方米输入功率最大的取暖器是否正确？

如果一个系列的取暖器的每平方米输入功率是相同的，只测试输入功率最大的是否正确？

决议：

是的，两种情况都是正确的，但是必须评估器具结构和使用的零部件以决定正确的系列代表型号。该评估应由机构 A 进行并在试验报告中说明。

说明：

同样的决议（n. 388）在 OSM/HA 决议列表中出现。

CTL DECISION SHEET

Standard(s)-: IEC 60335-1:2001	Sub clause(s): 30.2	DSH- 635
Subject: Resistance to heat and fire	Key words: Glow wire on motor capacitor	Approved by the 45th CTL Plenary Meeting 2008

Question:

Considering sub-clause 30.2 of part 1 including A2, how shall the glow wire test on motor capacitors be performed and on what parts?

Photo 1 shows a resin embedded motor capacitor where the internal connection between the wire and the plate is a soldered.

Photos 2 and 3 show the points of connection on the upper and lower part.
In all the figures, the connections are within 3 mm of the external plastic case of the capacitor.

Decision:

The glow wire test has to be performed over the shielding and shielded materials joined together, at the point the connection is made, at 750°C, from the inside to outside as normal testing, allowing the tip to penetrate the shielded material. In this case, the shielded material is the external plastic case because it is within 3mm from the connection (as in the figures).

Explanatory notes:

The same decision (n.378) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-1：2001	条款号： 30.2	决议单号： DSH 635
主题： 耐热耐燃	关键词： —电动机电容的灼热丝试验	2008 年第 45 届 CTL 全会批准通过

问题：

考虑第一部分标准（包括 A2）中的条款 30.2，电动机电容器的灼热丝试验该如何进行？取什么部位？

图 1 是内部充满树脂，且电线与印制电路板通过焊接连接的电动机电容器。

图 2 和图 3 是高位和低位的电气连接点。

所有图片中显示的连接点与电容器塑料外壳之间的距离均小于 3mm。

决议：

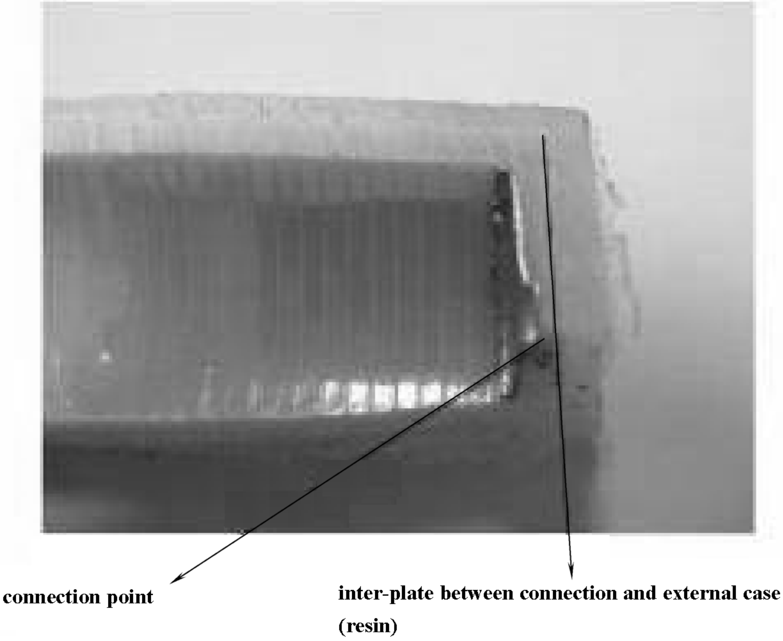
灼热丝试验应该同时覆盖防护性材料和被防护材料，在连接点处，取 750℃，像正常试验一样从内到外进行，允许尖端刺穿被防护材料。在这种情况下（如图），被防护材料是指塑料外壳，因为它到连接点的距离小于 3mm。

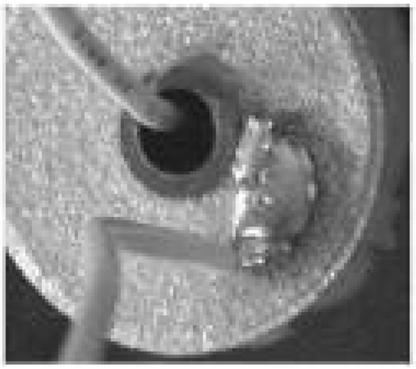
说明：

相同的决议（n.378）在 OSM/HA 决议列表中已列出。

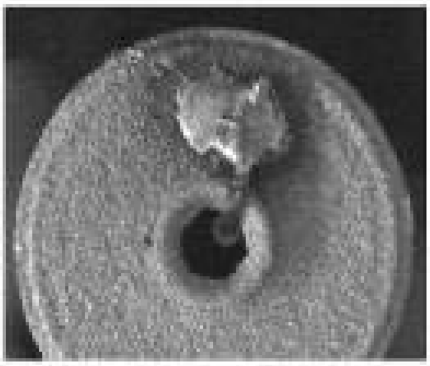
Photograph 1

Sample before the test showing the different parts





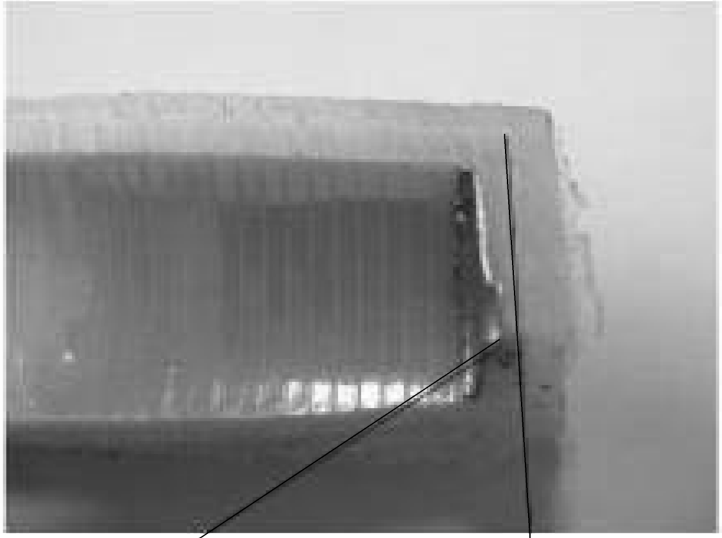
connection on the upper part of the capacitor



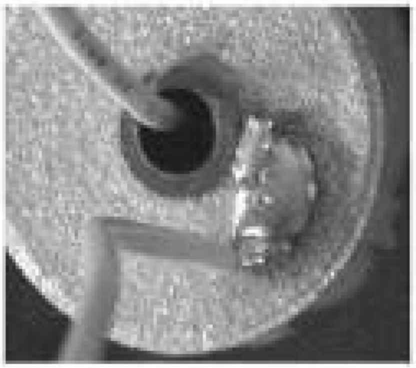
connection on the lower part of the capacitor

图 1:

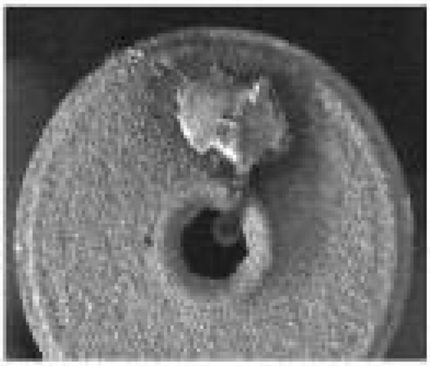
显示不同部分的测试前的样品



连接点　　在连接点和外壳（树脂）之间的隔板



电容高位连接点



电容低位连接点

CTL DECISION SHEET

Standard(s)-: IEC 60335-1:2001	Sub clause(s): 30.2.2 and 30.2.3	DSH-636
Subject: Resistance to heat and fire	Key words: Glow wire test	Approved by the 45th CTL Plenary Meeting 2008

Question:

In the photographs included below, a construction is shown with material not resistant to the glow wire test at 750°C/850°C marked PP and a terminal block mounted on 3 pins moulded on the material. In order to separate the connection area from the plastic part PP, a piece of a different material has been interposed. The pins fixing the terminal block are still made of material PP and are within a distance of less than 3 mm. Should material PP in this construction be tested with glow wire test at 750°C/850°C?

Decision:

The material shall be tested if it is less 3 mm from the connection. The 3 mm distance has to be measured from the point of connection between the wire and the screw inside the terminal and not from other terminal part.

Explanatory notes:

The same decision (n.381) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-1：2001	条款号： 30.2.2 和 30.2.3	决议单号： DSH 636
主题： 耐热耐燃	关键词： 一灼热丝试验	2008 年 CTL 45 次全会批准通过

问题：

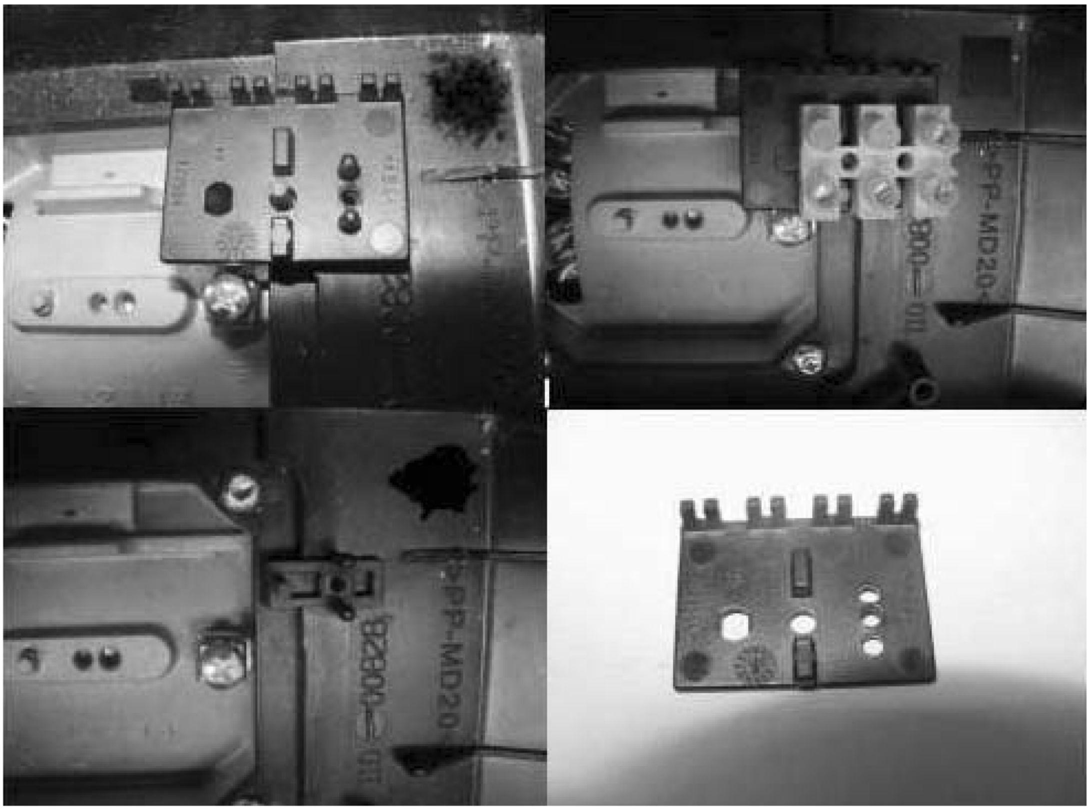
下图该显示，一个标有 PP 的材料没有能够通过 750℃/850℃的灼热丝试验，在该材料上模制而成的 3 个针脚上安装了一个接线端子。为了将连接处与塑料材料分离开，插入了一块不同的材料。用来固定的接线盒的针脚也是 PP 材料的，而且距离小于 3mm。此结构中的 PP 材料是否需要进行 750℃/850℃的灼热丝试验?

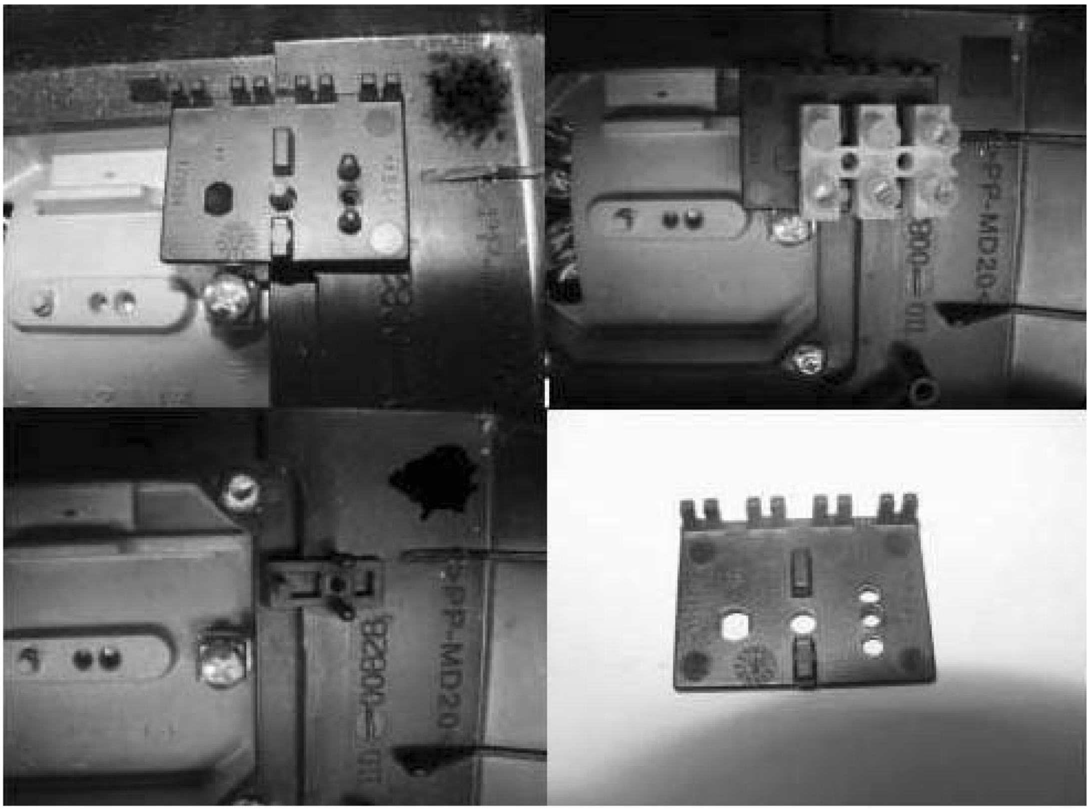
决议：

如果距离连接处小于 3mm，则材料应该进行测试。3mm 的距离应从电线与端子内部螺钉连接处开始而不是端子其他部分。

说明：

相同的决议（n.381）在 OSM/HA 决议列表中已列出。


PP-MD20



CTL DECISION SHEET

Standard(s)-: IEC 60335-1:2001	Sub clause(s): 30.2.3.2	DSH 637
Subject: Resistance to heat and fire	Key words: Needle flame test	Approved by the 45th CTL Plenary Meeting 2008

Question:

In case of an appliance having grills or openings which permit flame to exit from the appliance and the distance between the external parts and the connection is less than 50 mm (considering the envelope of the vertical cylinder having a diameter of 20 mm and a high of 50 mm), what considerations apply to the parts in contact with the external surface of the appliance?

Decision:

Taking into account the previous discussion in IEC/TC61 about the matter (see minutes of Cape Town meeting 2005 and the relevant Cape Town Chairman Report), it is considered that the flames out the appliance have not taken into account. In case of the drawing, if the enclosure complies with the needle flame, then the appliance withstands the clause 30 test.

Explanatory notes:

The same decision (n.382) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-1：2001	条款号： 30.2.3.2	决议单号： DSH 637
主题： 耐热和耐燃	关键词： —针焰试验	2008 年 CTL 45 次全会批准通过

问题：

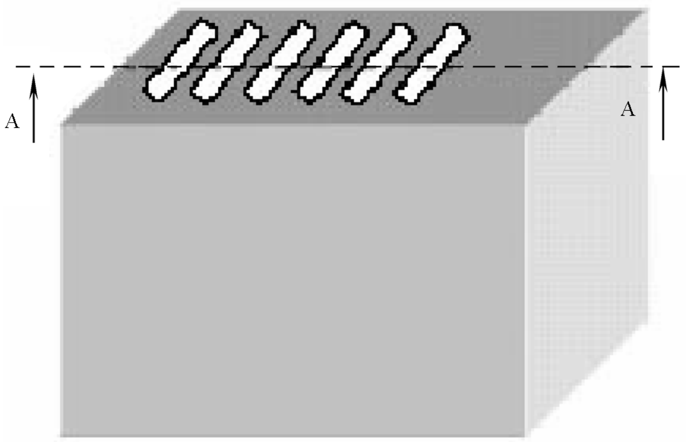
如果器具具有栅格或者开口，允许火焰穿出器具，并且外部部分与连接处的距离小于50mm（考虑一个直径为 20mm，高为 50mm 的立式圆柱体外壳），如何考虑与器具外表面接触零部件的要求？

决议：

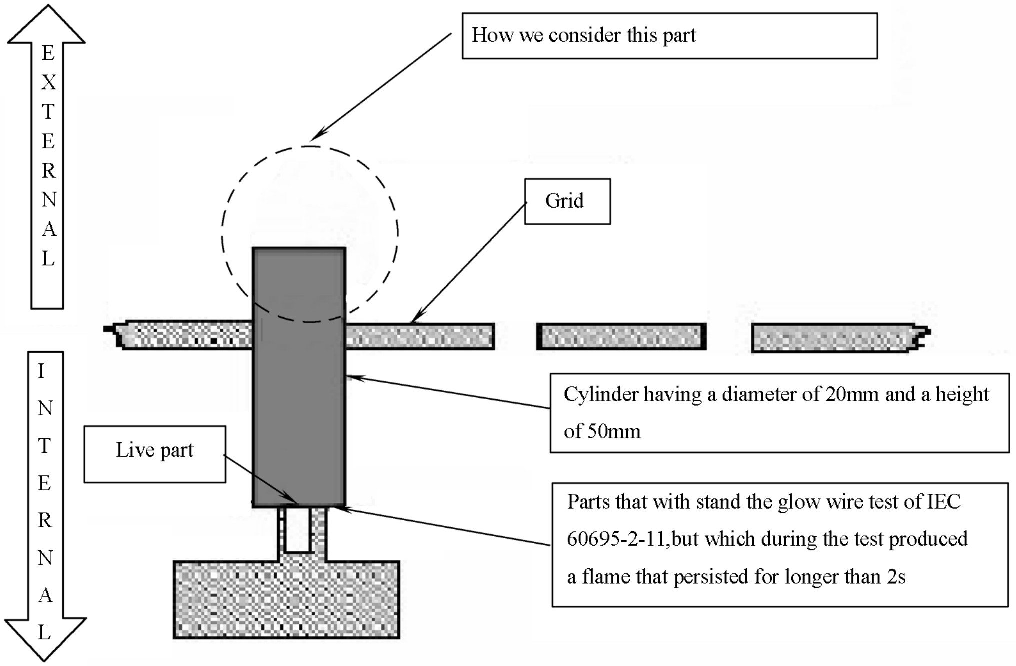
参考 IEC/TC61 先前关于这个问题的讨论（见 2005 年开普敦会议纪要和相关的开普敦主席报告），超出器具部分的火焰不考虑。如图所述的情况，如果外壳满足针焰试验要求，则器具符合 30 章的测试要求。

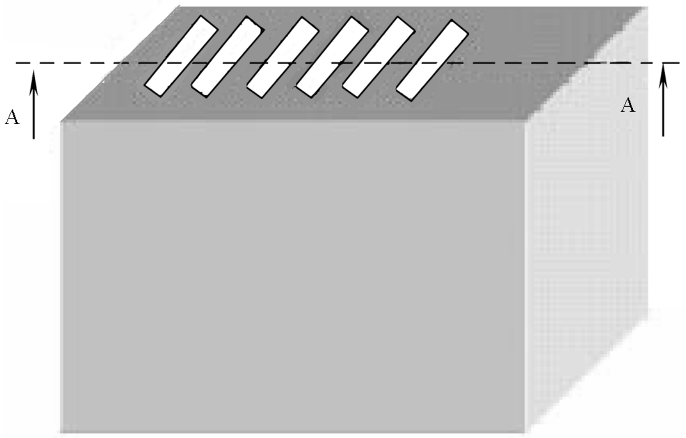
说明：

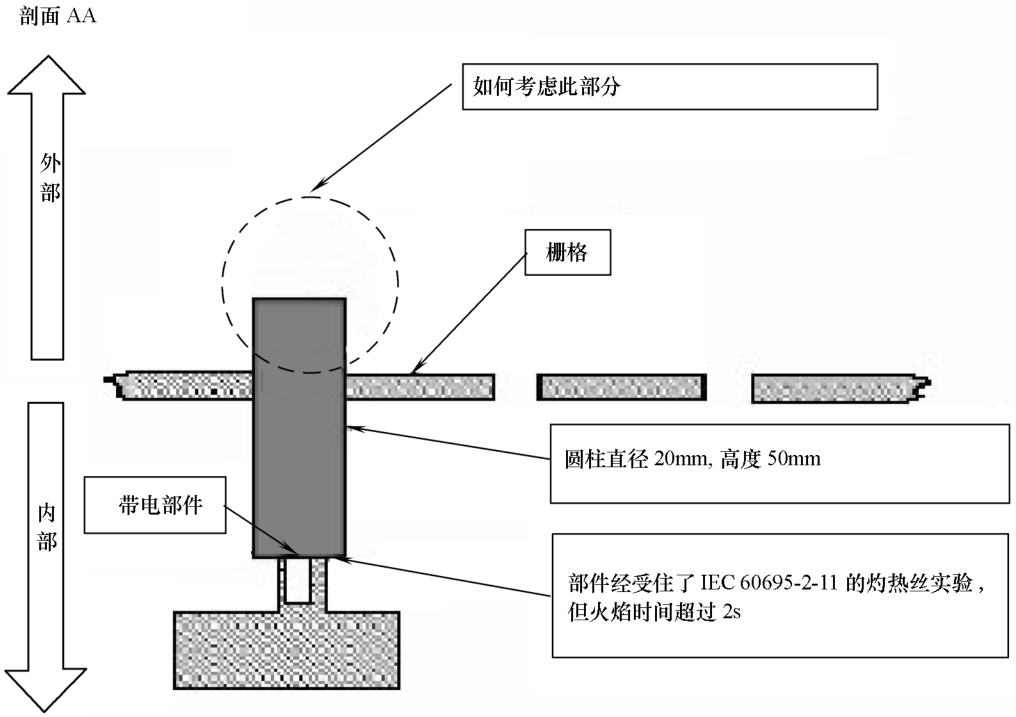
相同的决议（n.382）在 OSM/HA 决议列表中已列出。


A
A

SECTION AA


EXTERNAL
How we consider this part
Grid
INTERNAL
Cylinder having a diameter of 20mm and a height of 50mm
Live part
Parts that with stand the glow wire test of IEC 60695-2-11,but which during the test produced a flame that persisted for longer than 2s


A
A


剖面 AA
如何考虑此部分
外部
栅格
内部
圆柱直径 20mm, 高度 50mm
带电部件
部件经受住了 IEC 60695-2-11 的灼热丝实验，
但火焰时间超过 2s

CTL DECISION SHEET

Standard(s)-: IEC 60335-1:2001	Sub clause(s): 30.2.3.1	DSH 638
Subject: Resistance to heat and fire	Key words: Glow wire test	Approved by the 45th CTL Plenary Meeting 2008

Question:

Sub-clause 30.2.3.1 reads: "parts of insulating material supporting connections that carry a current exceeding 0,2 A during normal operation, and parts of insulating material within a distance of 3 mm of such connections, shall have a glow-wire flammability index of at least 850ºC according to IEC 60695-2-12, the test sample being no thicker than the relevant part"

Certain motors, have a nominal current around 0,2 A (for example, the pump of a washing machine), but during a certain time (for instance, because changes in the load, or the in-rush current) the current exceeds the limit of 0,2 A.

Shall the current in these periods of the motor be ignored, independently of its duration, in order to compare with the 0,2 A limit?

Decision:

The current to be considered will be the average current in the relevant operating period.

Explanatory notes:

The same decision (n.384) is present in the OSM/HA decision list

CTL 决议

<table>
<tr><td>标准：
IEC 60335-1：2001</td><td>条款号：
30.2.3.1</td><td>决议单号：
DSH 638</td></tr>
<tr><td>主题：
—耐热耐燃</td><td>关键词：
—灼热丝试验</td><td>2008 年 CTL 45 次全会批准通过</td></tr>
<tr><td colspan="3">问题：
标准条款 30.2.3.1 中写到："支持正常工作期间载流超过 0.2A 的连接件的绝缘材料零部件，以及距这些连接处 3mm 范围内的绝缘材料，其灼热丝的燃烧指数根据 IEC 60695-2-12 至少为 850℃，该试样不厚于相关零部件。"
一些电动机，额定电流为 0.2A（如洗衣机的泵），但是在特定时间段内（例如负载的变化，或者瞬间电流）电流超过 0.2A。
在与 0.2A 的限值进行比较时，这期间的电动机电流是否可以忽略，不论时间长短？

决议：
这里所考虑的电流应该是相关操作时间段内的平均电流。

说明：
相同的决议（n.384）在 OSM/HA 决议列表中已列出。</td></tr>
</table>

CTL DECISION SHEET

Standard(s)-: IEC 60335-2-6:2002	Sub clause(s): 3.1.6	DSH 639
Subject: Definitions	Key words: Diversity factor	Approved by the 45th CTL Plenary Meeting 2008

Question:

Taking into account the definitions stated in clause 3:

3.1.6 Note 101: "For appliances having more than three heating units per phase, a diversity factor is applied to the rated current or rated power input when determining the current used to establish the size of the terminals and the nominal cross-sectional area of the supply cord. The diversity factor F is calculated from the following formula, where N is the number of heating units per phase that can be energized together:

$$F = 0,35 + \frac{0,65}{\text{square root } N}$$ "

3.108 induction hob: hob containing at least one induction hob element.

3.112 induction hob element: hob element that heats metallic vessels by means of eddy currents.

3.109 heating unit: any part of the appliance that fulfils an independent cooking or warming function.

Consider the application of diversity factor to the following induction appliance (see schematic circuit) where:

- the induction hob is composed of 2 induction generators which fulfil an independent cooking and
- each induction generator is composed of 2 induction hob elements which are not independent together- the power input of the induction generator is distributed between 2 induction hob elements?

Decision:

For this case, the diversity factor is not applicable if the power input does not vary when the hob elements of the same generator are working together or separate.It is applicable, if the power input with both operating is the sum of each unit operating alone.

Explanatory notes:

The same decision (n.385) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-2-6：2002	条款号： 3.1.6	决议单号： DSH 639
主题： 定义	关键词： 一差异率	2008 年 45 届 CTL 会议批准

问题：

谈到第 3 章的定义：

3.1.6　注 101：“对每相带有 3 个以上发热单元的器具，额定电流或额定输入功率要使用一个差异率来求出电流，以确定接线端子大小及电源软线的标称横截面积。此差异率 F 可通过下述公式计算得出，公式中 N 是每相可以同时通电的发热单元的个数：

$$F=0.35+\frac{0.65}{\sqrt{N}}$$

3.108　电磁灶台：含有至少一个电磁灶头的器具。

3.112　电磁灶头：通过涡流电流加热金属容器的灶头。

3.109　发热单元：具有独立烹饪或保温功能的器具的任一零部件。

考虑以下感应器具（见电路原理图）对差异率的应用：

——该电磁灶台由两个可以实现独立烹饪的振荡器组成；

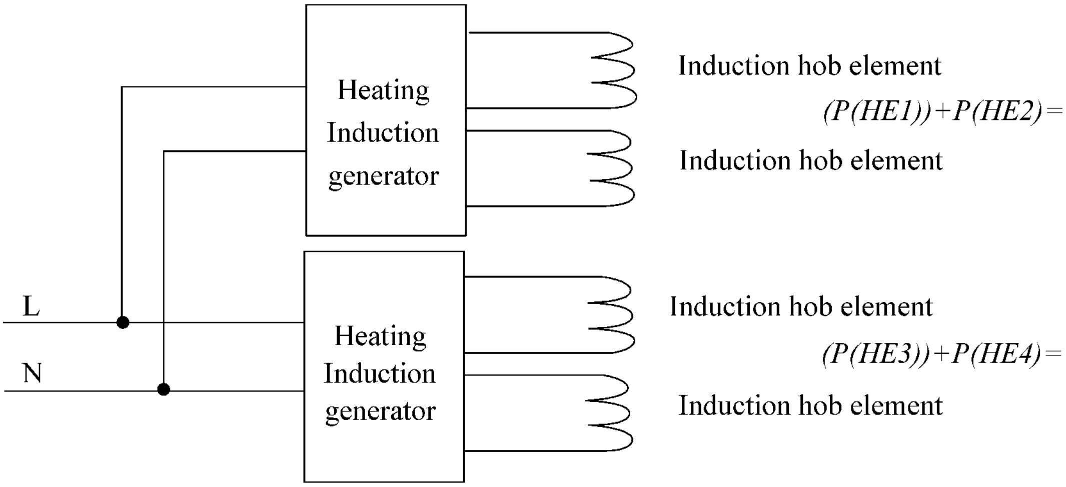
——每个电磁振荡器由两个电磁不独立的电磁灶头组成——电磁振荡器的输入功率在两个电磁灶头上分配？

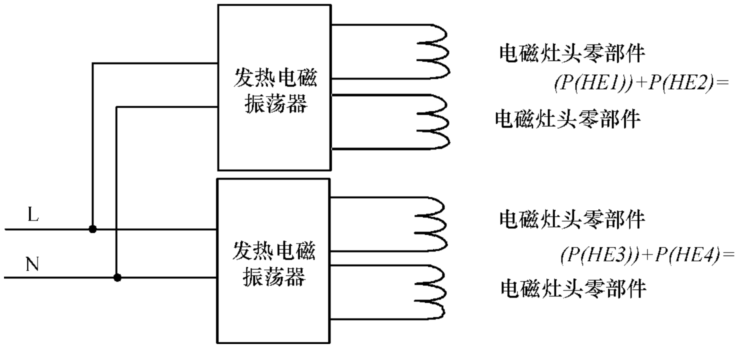
决议：

对这个案例，如果同一个振荡器的电磁灶头的输入功率在同时和独立工作时不变，差异率不适用。如果同时工作的输入功率等于每个单元单独工作的功率之和，差异率适用。

说明：

同样的决议（n.385）在 OSM/HA 决议列表中已列出。


Heating
Induction
generator
Induction hob element
(P(HE1))+P(HE2)=
Induction hob element
L
N
Heating
Induction
generator
Induction hob element
(P(HE3))+P(HE4)=
Induction hob element


发热电磁
振荡器
电磁灶头零部件
(P(HE1))+P(HE2)=
电磁灶头零部件
L
N
发热电磁
振荡器
电磁灶头零部件
(P(HE3))+P(HE4)=
电磁灶头零部件

CTL DECISION SHEET

Standard(s)-: IEC 60335-1:2001	Sub clause(s): 19.13 and 19.11.4	DSH 640
Subject: Abnormal operation	Key words: - Coffee makers - Unsafe condition	Approved by the 45th CTL Plenary Meeting 2008

Question:

We would like to clarify the criteria regarding clause 19.13 for coffee makers. The coffee makers are household appliances producing coffee, hot water and steam for cappuccino. Additionally, these coffee makers have electronics to control the brewing process.

Even if one function of the coffee makers starts its operation (either coffee, or water, or steam) during the test according to sub-clause 19.11.4, is it considered as not a dangerous condition conforming with sub-clause 19.13?

Decision:

Yes, the condition is in compliance with sub-clause 19.13 even if one of the functions of the coffee maker starts its operation during the test according to sub-clause 19.11.4.

Explanatory notes:

The same decision (n.390) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60335-1：2001	条款号： 19.13 和 19.11.4	决议单号： DSH 640
主题： 非正常工作	关键词： —咖啡机 —不安全工作条件	2008 年 45 届 CTL 全会批准通过

问题：

我们希望澄清咖啡机的 19.13 条款的判定条件。这些咖啡机是制作咖啡、热水和卡布其诺的蒸汽的家用电器。另外，这些咖啡机有电子部件控制煮的过程。

即使咖啡机的某个功能在按照 19.11.4 条的测试期间开始它的工作（煮咖啡，水或出蒸汽），依据条款 19.13 条，它不被认为是一种危险的条件吗？

决议：

是的，即使咖啡机的某个功能在根据 19.11.4 条的测试期间开始它的工作，这个条件也是符合条款 19.13 的规定的。

说明：

在 OSM/HA 决议列表中（n.390）决议与此决议相同。

CTL DECISION SHEET

Standard: **IEC 60335-2-80:2002**	**Sub clause(s):** **21.101**	**DSH 641**
Subject: **Mechanical strength**	**Key words:** **Fans**	**Approved by the CTL in the 45th meeting 2008**

Question:

How should the test of sub-clause 21.101 of IEC/EN 60335-2-80 be performed?

Decision:

The standard does not require use of the test finger for the pull and push test. It is agreed that the intention of this test is to check the mechanical resistance of the grid wires and not to check the introduction of the finger through the grid gap, that is covered by the test of 20.2 of IEC 60335-1.

Explanatory notes:

The same decision (n.386) is present in the OSM/HA decision list
See also the decision taken by TC 61 in Penang on document 61/3368/DC

CTL 决议

标准： IEC 60335-2-80：2002	条款号： 21.101	决议单号： DSH 641
主题： 机械强度	关键词： 一风扇	2008 年第 45 次 CTL 会议通过

问题：

应该怎样执行 IEC/EN 60335-2-80 中 21.101 子条款的试验？

决议：

标准没有要求在推拉试验时使用试验探棒。该试验的目的是检查格栅金属丝的机械强度，并不是检查试验探棒穿过格栅缝隙的情况，后者已经被 IEC 60335-1 的 20.2 条款所覆盖。

说明：

OSM/HA 决议条目中有相同的决议说明（n.386）。

这可参考 TC61 槟榔屿会议关于 61/3368/DC 中的决议。

CTL DECISION SHEET

Standard(s)–: IEC 60334–1:2001	Sub clause(s): 27.1	DSH 649
Subject: **Provision for earthing**	**Key words:** **Ball–bearing**	**Approved by the 45th CTL Plenary Meeting 2008**

Question:

Can a ball-bearing be considered as a reliable connection to earthed metal parts such as a motor shaft?

According to CTL DSH 263 it is not accepted for electric tools

Decision:

A ball - bearing can be considered as a reliable earth connection for household appliances if it complies with earthing requirements of the standard.

Explanatory notes:

The reliability aspect can only be judged on a case by case basis.
The same decision (n.380) is present in the OSM/HA decision list

CTL 决议

标准： IEC 60334-1：2001	条款号： 27.1	决议单号： DSH 649
主题： 接地措施	关键词： —球轴承	2008 年 45 届 CTL 全会批准通过

问题：

球轴承能否被认为是接地金属零部件（例如电动机轴）的一种可靠接地连接？

根据 CTL 决议 263，电动工具产品不可以接受。

决议：

对于家用电器，如果球轴承能满足标准对于接地的要求，那么它能被认为是一种可靠的接地连接。

说明：

可靠性的问题只能具体问题具体分析。

在 OSM/HA 决议列表中（n.380）决议与此决议相同。

CTL DECISION SHEET

Standard: **IEC 60335–2–55:2002**	**Sub clause:** **3.1.9**	**DSH:** **650**
Subject: **Definitions**	**Key words:** **Normal operation** **Aquarium water heater**	**Decision approved by the 45th CTL Plenary Meeting 2008**

Question:

As stated in the 5th paragraph of clause 3.1.9 of IEC50335-2-55, "Heaters are operated in a sufficient quantity of water to maintain the water temperature between 20°C and 25°C without the thermostat cycling." In the case of a heater in which the thermostat cycles independently of its regulation and of the water temperature, the above test conditions will not be possible to obtain.

(1) Is the heater not complying to the standard because it does not reach the standard operating conditions?

Is the test (clause 11) performed in the most unfavourable condition and the standard applied accordingly?

Rationale: see question

Decision:

If there is any kind of temperature sensing for cycling, then it should be prevented from cycling per clause 11. Sub-clause 19.4 may be covered in this construction. But if the cycling does not rely on the temperature of the water (energy regulator or similar) the cycling means are allowed to operate in clause 11 and shall be short-circuited in sub-clause 19.4.

EXPLANATION:

The same decision (n.394) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-2-55：2002	条款号： 3.1.9	决议单号： DSH 650
主题： 定义	关键词： —正常工作 —水族箱水加热器	2008 年 45 届 CTL 全会会议批准

问题：

IEC 50335-2-55 条款 3.1.9 第 5 段中规定，“加热器在足够量的水中工作，使温控器不循环动作且水的温度保持在 20～25℃之间。”在一个加热器的温控器循环独立于它的调节装置和水温的时候，以上试验条件会无法实现。

该加热器是否因为无法达到标准工作状态而不符合标准要求？

第 11 章的试验是否在最不利条件下进行，而标准也适用？

基本原因：

见问题

决议：

如果有任何种类的温度传感器引起循环，则应该按第 11 章防止循环。在这种结构中，19.4 条可以被覆盖。但如果循环和水温无关（能量调节器或类似装置），这种循环方式允许在 11 章中工作且应在 19.4 条中短路。

说明：

同样的决议（n.394）在 OSM/HA 决议列表中出现。

CTL DECISION SHEET

Standard: **IEC 60335-1:2001**	**Sub clause:** **19**	**Dec No:** **DSH-651**
Subject: **Abnormal operation**	**Key words:** **VDR**	**Decision approved by the 45th CTL Plenary Meeting 2008**

Question:

Can VDR resistors be connected from live parts to earthed metal parts?
If yes, can they be accepted under the condition?

Decision:

VDR resistors between live parts and earth can be accepted if the appliance complies with the insulation requirements of the standard, Clauses 13, 16 and 19, and the varistor has a weak part in any part of the circuit in series with it.Varistors are not reliable safety components and can short circuit at any time.

Explanatory notes:

The same decision (n.396) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-1：2001	条款号： 19	决议单号： DSH 651
主题： 非正常工作	关键词： —VDR	2008 第 45 届 CTL 全会的决议

问题：

VDR 电阻是否可被连接在带电零部件与接地金属零部件之间？如果是，在一定条件下是否可接受？

决议：

如果器具能满足标准中的绝缘要求及 13、16、19 章的要求，并且 VDR 要与电路中簿弱环节串联，VDR 电阻可连接在带电件与接地之间。VDR 不是可靠的安全零部件，随时可能短路。

说明：

在 OSM/HA 决议列表中（n. 396）决议与此决议相同。

CTL DECISION SHEET

Standard: **IEC 60335–1:2002**	**Sub clause:** **19 and 29**	**DSH 652**
Subject: **Abnormal operation**	**Key words:** **Motor protectors**	**Decision approved by the 45th CTL Plenary Meeting 2008**

Question:

Is it correct to apply the requirements of IEC 60730 inside a motor protectorand the requirements of clause 29 of IEC 60335-1 after .operation during the test of clause 19. Or should the requirements of clause 29 be applied only to connections, tracks and other parts of the protection circuits?

Decision:

The requirements of IEC 60730 apply to the motor protector itself. tThe requirements of the IEC 60335 apply for all the other parts of the protection circuit.

Explanatory notes:

A similar decision (n.398) is present in the OSM/HA decision list.
This matter was already confirmed by IEC/TC61 as indicated in item 33a of the Jeju meeting minutes (document 61/3211/RM) concerning inquiry USA1 and is also in line with IEC/TC 61/MT 23 opinion.

CTL 决议

标准： IEC 60335-1：2002	条款号： 19、29	决议单号： DSH 652
主题： 非正常工作	关键词： —电机保护器	2008 年第 45 届 CTL 全会的决议

问题：

在 19 章的试验中，电动机内装保护器动作后，应用 IEC 60730 和 IEC 60335-1 第 29 章条款要求合适吗？还是说 29 章的要求仅适用于连接、路径和保护电路的其他部分？

决议：

IEC 60730 的要求适用于电动机保护器本身，IEC 60335 的要求适用于保护电路的所有其他部分。

说明：

在 OSM/HA 决议列表中，（n. 398）决议与此决议相同。

这个问题已经被 IEC/TC61 确认，见济州会议纪要（61/3211/RM）第 33a 项中针对 USA1 的问询，而且也与 IEC/TC61/MT23 观点一致。

CTL DECISION SHEET

Standard: **IEC 60335-1:2002**	**Sub clause:** **7.15**	**DSH:** **653**
Subject: **Marking**	**Key words:** **Class III appliances**	**Decision approved by the 45th CTL Plenary Meeting 2008**

Question:

Some appliances are composed of a class III part supplied by a class II plug transformer through a removable cord connection.

Clause 7.15 indicates that "The markings specified in 7.1 to 7.5 shall be on a main part of the appliance"

1) Should the symbol corresponding to class II be applied and on what part of the appliance?
2) Should the markings specified in 7.1 to 7.5 be placed on the transformer, with only the reference of model on the class III part?

Decision:

The marking may be on the power supply unit under the following conditions:
- the appliance is delivered as one appliance with two parts, a power supply unit and a class III apparatus.
- the power supply is specially designed for the class III apparatus and has the model or other relevant identification of the class III part marked on it.
- the class III apparatus has the same model marking as the power supply unit and the instructions shall include that only the power supply unit delivered with it can be used.
- special markings required in the relevant part 2 for the class III part shall be marked on it.

Explanatory notes:

A similar decision (n.403) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-1：2002	条款号： 7.15	决议单号： DSH 653
主题： 标志	关键词： —Ⅲ类器具	2008 年第 45 次 CTL 全会的决议

问题：

一些器具由Ⅲ类部件和通过可移除电线连接为其供电的Ⅱ类插头变压器组成。

7.15 条款中"7.1～7.5 中规定的标志，应标在器具的主体上。"

1）Ⅱ类设备的对应符号是否应使用，应标在器具的哪一部分？

2）应把 7.1～7.5 规定的标志放在变压器上，而只将型号放在Ⅲ类部件上吗？

决议：

如下几种条件可以将标志置于电源单元上：

—该器具交付时为一个器具，分为两部分，一部分为供电单元，另一部分为Ⅲ类设备。

—供电单元是专门为该Ⅲ类设备设计的，并且有Ⅲ类部件的型号或其他相关识别信息在上面。

—Ⅲ类设备与供电单元有相同的标志型号，说明书中应说明仅此供电单元与之匹配使用。

—在相关特标中对Ⅲ类部分有特殊标识规定的应当标明。

说明：

OSM/HA 决议列表中已有类似决议（n.403）。

CTL DECISION SHEET

Standard: **IEC 60335-1:2002**	**Sub clause:** **19.11.4.4**	**DSH:** **654**
Subject: **Abnormal operation**	**Key words:** **Surge test**	**Decision approved by the 45th CTL Plenary Meeting 2008**

Question:

When performing the tests of clause 19.11.4.4 (surge test), does the standard require the heating elements to be disconnected? Earthed heating elements in class I appliances are disconnected during this test.

Can the test be omitted where the heating element is integrated into the appliance such that disconnection is not possible and, where due to the construction and the operating control system, it is not possible to operate with the heating element disconnected? The reason being when applying the test with the heating resistance connected, the insulation between earth and the heating element is destroyed.

Decision:

Electro-mechanical components are not to be tested for failure in 19.11.4. However, if the failure affects the Protective Electronic Circuit (PEC), it shall comply with the requirement of the standard.

Explanatory notes:

The same decision (n.407) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-1：2002	条款号： 19.11.4.4	决议单号： DSH 654
主题： 非正常试验	关键词： —浪涌电压试验	2008 年第 45 届 CTL 年会的决议

问题：

在进行 19.11.4.4 浪涌电压试验时，标准是否要求电热元件断开？I 类器具中的接地电热元件在该试验中断开。

由于电热元件与器具整合而无法断开的，和由于结构和操作控制系统原因，断开电热元件器具不能工作的，能否忽略该试验？理由是进行试验时与电热元件相连接，使得接地和电热元件之间的绝缘层被损坏。

决议：

在 19.11.4 非正常试验中，不需要对机电零部件进行失效试验，但是，如果失效影响电子保护线路（PEC），就必须按照标准要求进行试验。

说明：

在 OSM/HA 决议里有相同的决议（n.407）。

CTL DECISION SHEET

Standard: IEC 60335–2–29:2002	Sub clause: 30.2.3.1 and 30.2.3.2	DSH: 655
Subject: Resistance to heat and fire	Key words: Glow wire test	Decision approved by the 45th CTL Plenary Meeting 2008

Question:

Is the plastic material fixing the plug of a battery pack of a hand-held power tool evaluated as insulation material and subjected to the glow-wire tests in 30.2.3.1 and 30.2.3.2, even if the battery pack is not included in the tests of IEC 60335-2-29 if the rated output current is less than 20A?

Is IEC 60335-2-29 also applicable to a combined battery charger and battery pack, if the battery pack is a special one (e.g. for hand-held tools) only chargeable by the battery charger and with safety relevant components (e.g. thermal protector) inside.

Decision:

1.- For the figure, it is clear in the standard that sub-clauses 30.2.2 and 30.2.3 applies to any plastic material supporting connection regardless the distance to the point of the connection.

2.- If the battery is special for the appliance in such a way that it is needed for compliance with the requirements of the standard then, it shall be considered as a part of the appliance and shall comply with all relevant clauses of the appliance standard.

Explanatory notes:

The same decision (n.414) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-2-29：2002	条款号： 30.2.3.1 和 30.2.3.2	决议单号： DSH 655
主题： 耐热和耐燃	关键词： —灼热丝试验	2008 年 45 届 CTL 全体会议批准

问题：

用于固定手持式电动工具电池组插头的塑料材料是否需要被视为绝缘材料来评估，并经受 30.2.3.1 和 30.2.3.2 的灼热丝试验，即使这种电池组因为额定输出电流小于 20A 而不包括在 IEC 60335-2-29 的试验内？

IEC 60335-2-29 是否也适用于组合电池充电器和电池组，如果电池组是一种专用的（例如手持式电动工具用的）只能用这种充电器充电且内有安全零部件（例如热保护器）的电池组？

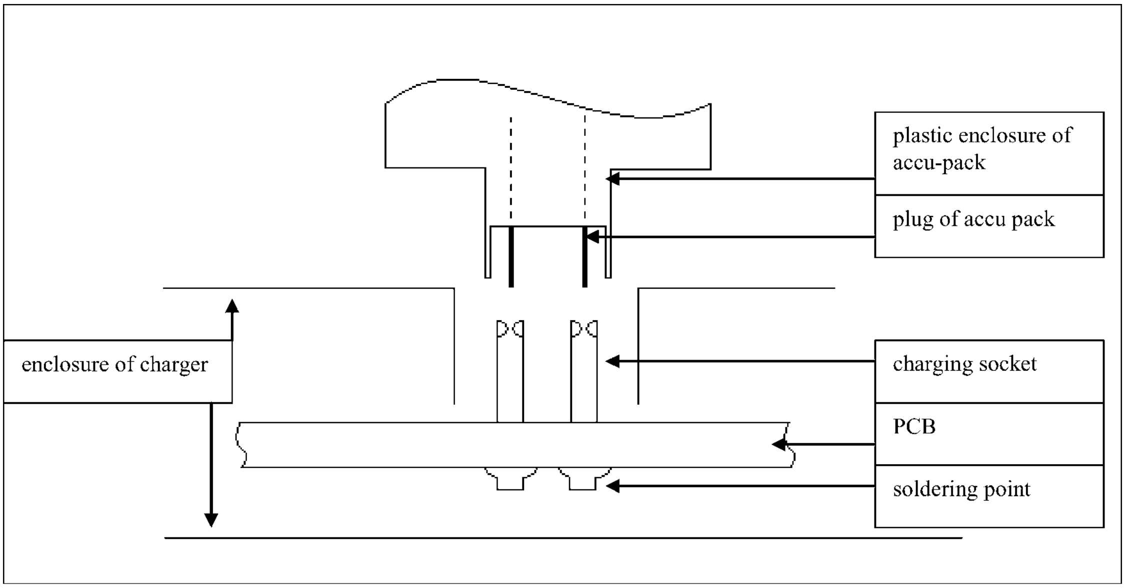
决议：

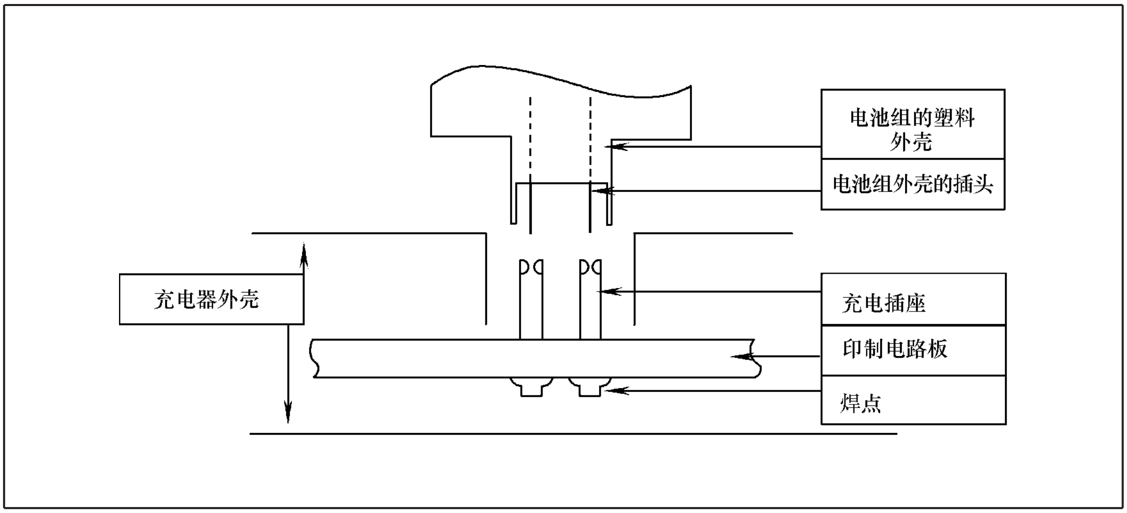
1. 对图中所示，标准明确指出 30.2.2 和 30.2.3 适用于所有支撑连接的塑料材料，而不管到连接点的距离。

2. 如果电池是专门匹配某个器具且只有这样才能满足标准的要求，那么应该考虑其作为器具的一部分，且应符合器具标准的相关要求。

说明：

同样的决议（n.414）在 OSM/HA 决议列表中出现。


plastic enclosure of accu-pack
plug of accu pack
enclosure of charger
charging socket
PCB
soldering point


电池组的塑料
外壳
电池组外壳的插头
充电器外壳
充电插座
印制电路板
焊点

CTL DECISION SHEET

Standard(s)- IEC 60335-1:2001	Sub-clause(s): 29.2	No.	Year
		DSH 0710	2008
Category: HOUS		Developed by: ETF 1	
Subject: Creepage/clearance	**Key words:** - CTI index - PCB	**Decision approved at the 46th CTL Plenary Meeting 2009**	

Question:

We have found situations in which a printed circuit board (PCB) with a declared CTI of 400 or higher, passes the test on the component side of the PCB, that is not lacquered, but does not pass the test on the printed circuit side with SMD components that is lacquered or varnished, and is typically in green colour.

1 - Do both sides need to comply with the required CTI, if the corresponding creepage distance so requires it?

2 - On the other hand, it could be said that the varnish over the printed circuit side of the PCB allows us to consider that the creepage distance is not applicable. Therefore, the CTI would not be necessary. In our opinion, this consideration is not correct. Do you agree?

3 - In any case, if the manufacturer wants to reduce the distances below the limits for the relevant CTI and pollution degree, the manufacturer could improve the pollution degree category by using a coating that is annex J compliant and apply the corresponding column for pollution degree 1 in tables 17 or 18. Do you agree?

4 - Even in the case of a CTI certified raw material PCB, the varnished side of the final mounted PCB should be tested to the relevant CTI unless a valid CTI certificate is provided. Do you agree?

Decision:

1- If the varnish covers completely the PCB over the soldered components, no CTI is required for the varnish. CTI is required for the PCB under the varnish, and the corresponding distances must be required according to the varnish type 1 or 2.

2- If there are relevant parts not varnished, for instance soldering points, the varnish has to comply with the corresponding CTI for the creepage distance in addition to the requirements under the varnish for the PCB.

Explanatory Notes:

The same decision (n.393) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2001</td><td rowspan="3">条款号：
29.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0710</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
爬电距离/电气间隙</td><td>关键词：
—CTI 指数
—PCB</td><td colspan="2">2009 年第 46 届 CTL 全会的决议</td></tr>
</table>

问题：

我们发现一些印制电路板（PCB 标称 CTI 值为 400 或更高的）没有涂漆的零部件面通过了试验，但是有 SMD 元件的涂漆或涂覆的印制电路面，即典型的绿色面，不能通过试验。

1. 是否两面都需要满足相应的爬电距离对应的 CTI 值要求？

2. 另一方面可以说 PCB 板的印制电路面的涂覆层使我们认为爬电距离不适用，因此，CTI 也就没有必要。我们认为，这样的考虑是不正确的，是否同意？

3. 在任何情形下，如果制造商在相应的 CTI 指数和污染等级限值下减小距离，可以通过用符合附录 J 要求的涂覆层来提高污染等级，从而适用表 17 和表 18 中污染等级 1 那栏。是否同意？

4. 即使 PCB 原材料有 CTI 指数证明，最终成型后的 PCB 的涂覆面也需要进行相关的 CTI 指数试验，除非提供一个有效的 CTI 指数证明。是否同意？

决议：

1. 如果漆层完全覆盖 PCB 板焊接零部件的背面，漆层不要求任何 CTI 指数。对漆层下面的 PCB 有 CTI 指数的要求，并且对类型 1 或 2 的漆层有相应的距离要求。

2. 如果有相关部分没有覆漆，例如焊点，则漆层除满足 PCB 漆层的要求外，还应该满足与爬电距离相应的 CTI 要求。

说明：

在 OSM/HA 决议目录上，相同的决议（n. 393）已经存在。

CTL DECISION SHEET

Standard(s)- IEC 60335-2-6:2002	Sub-clause(s): 3.1.9.101	No.	Year
		DSH 0711	2008
Category: HOUS		Developed by: ETF 1	
Subject: Definitions	Key words: - Cooking zone - Cooking vessel	Decision approved at the 46th CTL Plenary Meeting 2009	

Question:

In note 3 of clause 3.1.9.101, the use of a non-circular vessel is specified for non-circular cooking areas. Only the characteristics of circular vessels are specified in the standard. Furthermore, the last part of the text in note 3 requires the use of information regarding circular vessels (amount of liquid depending on smallest diameter of the cooking area).

1- Should note 3 say "the smallest circular vessel" instead "the smallest non-circular vessels"?

2. If the answer to 1 is no, what are the required characteristics of the non-circular vessel?

3. When the shape of the cooking zone is elongated, is it possible to use more than one circular vessel in the same cooking zone, if this arrangement covers the shape of the cooking zone more than using only one big vessel?

Decision:

1: Note 3 has to be applied. To help in the common understanding, see the sketch included with this decision. If necessary, the manufacturer can be asked to supply a suitable vessel.

2: The material specified in Figure 102 is only applicable to pots for induction hob elements. For other hob elements, the pot material is unpolished commercial quality aluminium as specified in the first paragraph of 3.1.9.101.

3: No, it is not possible to use more than one circular vessel for the same cooking zone.

Explanatory Notes:

The same decision (n.397) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-2-6：2002</td><td rowspan="3">条款号：
3.1.9.101</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0711</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
定义</td><td>关键词：
—烹饪区域
—烹饪用容器</td><td colspan="2">2009 年第 46 届 CTL 全会的决议</td></tr>
<tr><td colspan="4">问题：
条款 3.1.9.101 的注 3 表明非圆形容器适用于非圆形烹饪区域。标准仅对圆形容器特征进行了描述。此外，在注 3 最后部分有要求关于非圆形容器使用的信息（液体的量由烹饪区域的最小直径决定）。
1. 注 3 讲的是否应为“最小圆形容器”而非“最小非圆形容器”?
2. 如果对 1 的回答是否定的，非圆形容器的要求特征是什么?
3. 当烹饪区域的形状被拉长，在同一烹饪区域内是否可以用多于 1 个的圆形容器，如果这样安排可以覆盖的烹饪区域比仅用一个大的容器更多?

决议：
1. 注 3 必须适用，为有助于理解，参看决议中的图。如有必要，可要求制造商提供一个合适的容器。
2. 图 102 所示材料仅适用于电磁感应灶头零部件的锅。对其他灶头零部件，3.1.9.101 的第一段表明锅是由未抛光的商业用铝制成的。
3. 不行，不可能在同一烹饪区域使用多于 1 个的圆形容器。
说明：
在 OSM/HA 决议目录上，相同的决议（n. 397）已经存在。</td></tr>
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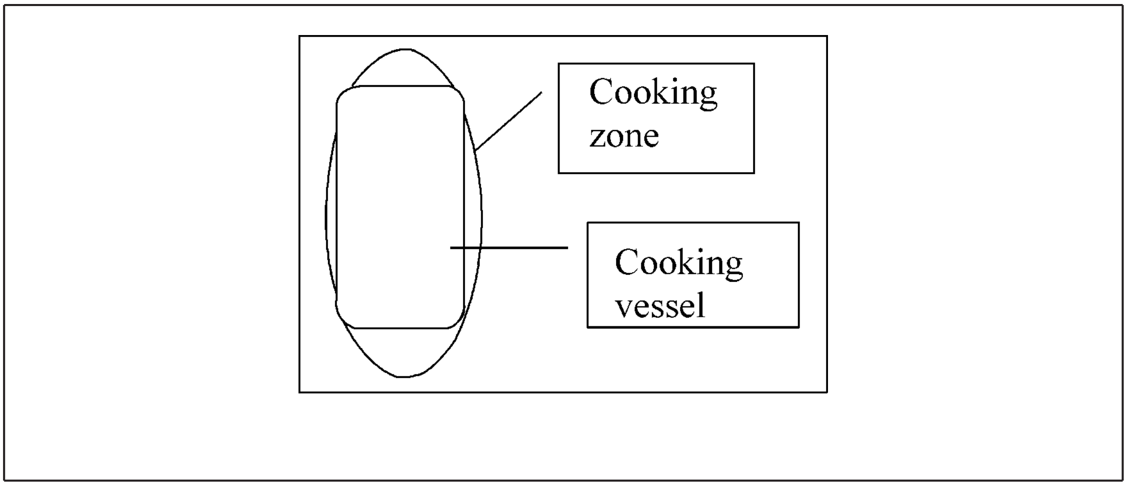
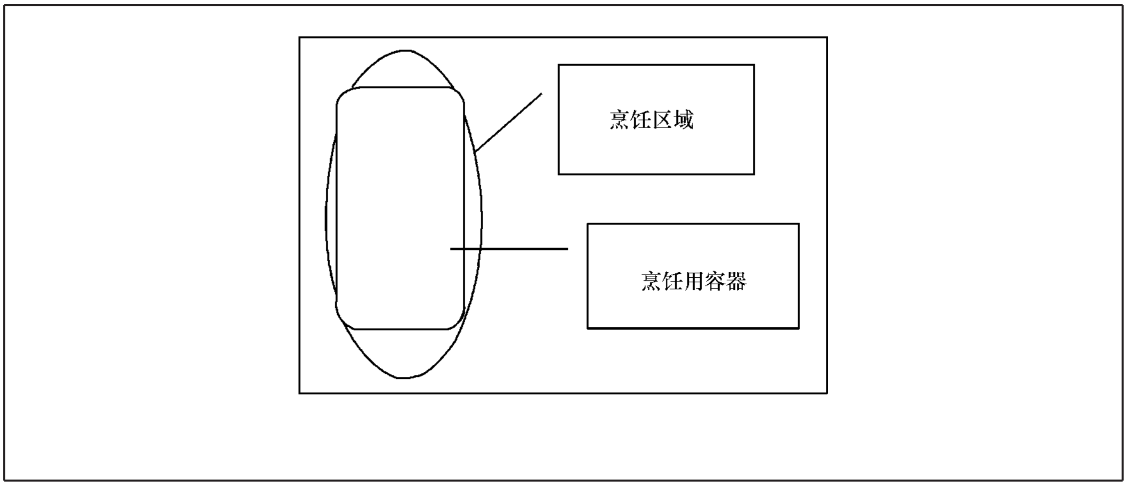

Cooking zone
Cooking vessel


烹饪区域
烹饪用容器

CTL DECISION SHEET

Standard(s)- **IEC 60335-1:2002**	**Sub-clause(s):** **19.5**	**No.** **DSH 0712**	**Year** **2008**
Category: HOUS		**Developed by: ETF 1**	
Subject: **Abnormal operation**	**Key words:** **- Defrosting heating elements** **-Plastic insulated heating elements**	**Decision approved at the 46th CTL Plenary Meeting 2009**	

Question:

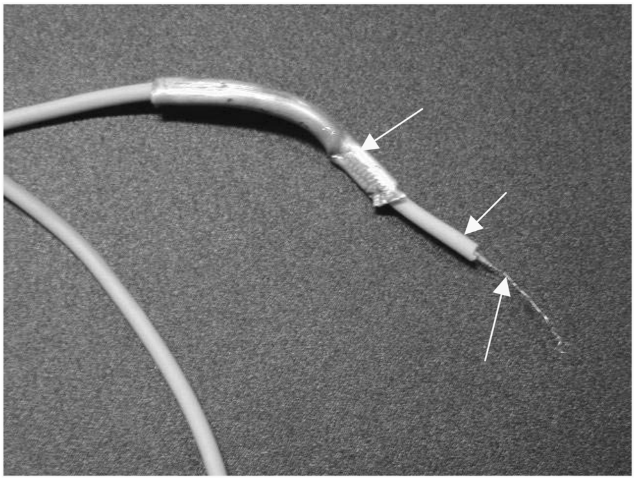
Should the heating element shown in the photograph, which is commonly used for the defrosting heating element in refrigerators, be considered as a "tubular sheathed or embedded heating element?" Is the test of sub-clause 19.5 applicable?

Decision:

Heating elements insulated by PVC, or other similar cable insulation are not tested in accordance with clause 19.5, which refers to a special insulation that may be affected by humidity conditions.

Explanatory Notes:

The same decision (n.404) is present in the OSM/HA decision list.



Coating in aluminium

Insulation in silicone or PVC

Heating element (wire)

CTL 决议

<table>
<tr><td>标准：
IEC 60335-1：2002</td><td rowspan="2">条款号：
19.5</td><td>决议单号</td><td>年份</td></tr>
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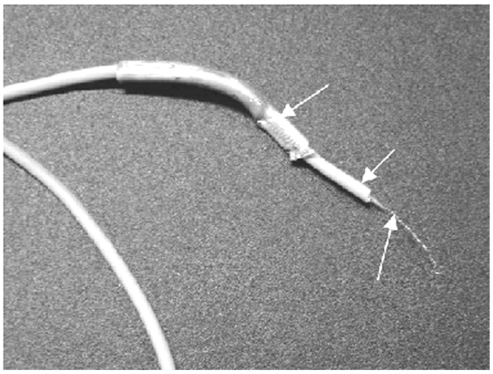
IEC 60335-1：2002</td><td rowspan="3">条款号：
19.5</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0712</td><td>2008</td></tr>
<tr><td>分类：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
非正常工作</td><td>关键词：
—除霜电热元件
—塑料绝缘电热元件</td><td colspan="2">2009 年第 46 届 CTL 会议的决议</td></tr>
<tr><td colspan="4">问题：
下图所示的通常用作冰箱里的除霜电热元件，是否被认为是“管状外鞘或是埋入式电热元件”？条款 19.5 的试验是否适用？

决议：
由 PVC 或是类似电缆绝缘作为外层绝缘的电热元件不适用条款 19.5，该条款指的是潮湿条件下可能会受影响的特殊绝缘。

说明：
在 OSM/HA 决议清单中列出了同样的决议（n.404）。</td></tr>
</table>



CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s)-
IEC 60335-1:2001</td><td rowspan="3">Sub-clause(s):
19.11.4.1.to 19.11.4.8</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH 0713</td><td>2008</td></tr>
<tr><td>Category: HOUS</td><td colspan="2">Developed by: ETF 1</td></tr>
<tr><td>Subject:

Abnormal operation</td><td>Key words:
- Electronic disconnection
- Stand by mode</td><td colspan="2">Decision approved at the 46th CTL Plenary Meeting 2009</td></tr>
</table>

Question:

Should the tests from 19.11.4.1 to 19.11.4.8 be performed on an appliance having an electro-mechanical switch in series with a switch with an OFF position obtained by electronic disconnection or a switch that can be placed in the stand-by mode?

Decision:

If the switch allows leaving the appliance in stand-by mode, then 19.11.4 is applicable.

Explanatory Notes:

The same decision (n.406) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2001</td><td rowspan="3">条款号：
19.11.4.1～19.11.4.8</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0713</td><td>2008</td></tr>
<tr><td>分类：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
非正常工作</td><td>关键词：
—电子断开
—待机状态</td><td colspan="2">2009 年第 46 届 CTL 会议的决议</td></tr>
</table>

问题：

带有一个机电开关的器具，该开关与通过电子断开获得断开位置的开关或是可处于待机模式的开关相连，对于这样的器具，是否需要进行从 19.11.4.1～19.11.4.8 的试验？

决议：

如果开关允许器具处于待机状态，那么 19.11.4 适用。

说明：

在 OSM/HA 决议清单中列出了同样的决议（n.406）。

CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s)-
IEC 60335-1:2001</td><td rowspan="3">Sub-clause(s):
29.2</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH 0714</td><td>2008</td></tr>
<tr><td>Category: HOUS</td><td colspan="2">Developed by: ETF 1</td></tr>
<tr><td>Subject:

Application of tracking test</td><td>Key words:
- CTI
- PTI
- material group</td><td colspan="2">Decision approved at the 46th CTL Plenary Meeting 2009</td></tr>
</table>

Question:

It is stated in clause 29.2 of IEC 60335-1 that insulating material in connection with required creepage distances has to be of material group Ⅰ, Ⅱ, Ⅲa or Ⅲb.

For example, there may be 10 different relevant materials in a simple motor, all of which have to be tested unless the materials are already separately certified for CTI. Often we hear from customers that they have to deliver certificates or special prepared test samples in case the parts are not satisfactory for testing, due to size or shape.

Is it always necessary to verify that the material group is at least of material group Ⅲb.?

Decision:

Yes, it is always necessary to verify that the material group is at least of group Ⅲb.

Explanatory Notes:

The testing and getting the test samples is costly and time consuming. Therefore, it was necessary to clarify the procedure.

CTL 决议

<table>
<tr><td>标准：
IEC 60335-1：2001</td><td rowspan="2">条款号：
29.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td></td><td>DSH 0714</td><td>2008</td></tr>
<tr><td>分类：家电</td><td></td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
漏电起痕的应用</td><td>关键词：
—CTI
—PTI
—材料组</td><td colspan="2">2009 年第 46 届 CTL 会议的决议</td></tr>
</table>

问题：

根据 IEC 60335-1 中 29.2 所述，与要求的爬电距离相关的绝缘材料必须为材料组Ⅰ、Ⅱ、Ⅲa 或Ⅲb 中的材料。

例如，一个简易电动机内可能包含 10 种不同的塑料材料，这些材料都必须进行测试，除非材料已经单独通过 CTI 测试。通常我们从客户那里了解到，他们不得不提交证书，或者由于试样的尺寸和形状无法满足试验的要求而递交特殊准备的样品。

是否有必要验证材料组至少为Ⅲb 组。

决议：

必须验证材料组至少为Ⅲb 组。

说明：

测试和获得试验品既耗成本又费时间。因此，必须说明试验程序。

CTL DECISION SHEET

Standard(s)-	Sub-clause(s):	No.	Year
IEC 60335-2-23:2003	**11.2**	**DSH 0715**	**2008**
Category: HOUS		**Developed by: ETF 1**	
Subject: **Testing hair curler with stand**	**Key words:** **- Determining floor temperature**	**Decision approved at the 46th CTL Plenary Meeting 2009**	

Question:

In sub-clause 3.5.1 and 11.2 of IEC 60335-1:2001, it is mentioned that hand held appliances, such as a hair curler, are appliances held in the hand during normal use. During the test of clause 11, hand held appliances are to be held in their normal position of use.

In IEC 60335-2-23:2003, there is no modification done to align to IEC 60335-1:2001. As a result, no floor temperatures have to be measured.

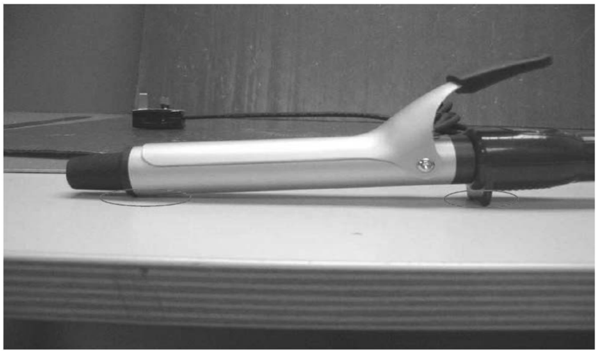
For a hair curler with a stand built into the handle with the possibility of being put on the table in a stable position (see picture), is it necessary to determine the floor temperatures?

Decision:

Yes, it should be tested on the stand and floor temperatures measured.

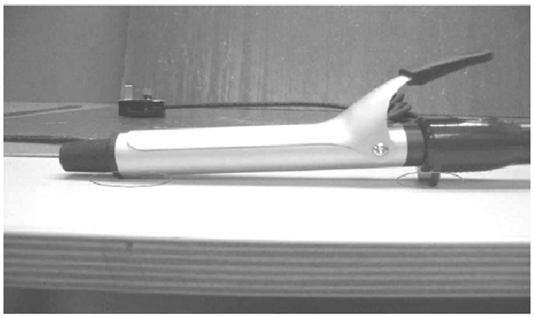
Explanatory Notes:

Sub-clause 11.2 of IEC60335-2-23 will be modified to clarify the decision.



CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-2-23：2003</td><td rowspan="3">条款号：
11.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0715</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
带有支架的卷发器的测试</td><td>关键词：
一底板温度确定</td><td colspan="2">2009 年第 46 届 CTL 全会的决议</td></tr>
<tr><td colspan="4">问题：
在标准 IEC 60335-1：2001 的 3.5.1 和 11.2 中提到的手持式器具，例如卷发夹，是正常使用期间用手握持的器具。在 11 章试验期间，手持式器具，应保持其在使用时的正常位置上。
在 IEC 60335-2-23：2003 中，未根据 IEC 60335-1：2001 做任何修改。因此，没有必要测量底板温度。
对于在手柄上有一个支架的卷发器，可被稳定地放置在桌上（如图），是否有必要确定底板温度。
决议：
是的，应该在支架上进行试验并且测量底板温度。
说明：
IEC 60335-2-23 的 11.2 条将被修改以明确决议。</td></tr>
</table>



CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s)-
IEC 60335-2-29:2002</td><td rowspan="3">Sub-clause(s):
19.13</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH 0718</td><td>2008</td></tr>
<tr><td>Category: HOUS</td><td colspan="2">Developed by: ETF 1</td></tr>
<tr><td>Subject:
Abnormal operation</td><td>Key words:
- Special battery pack</td><td colspan="2">Decision approved at the 46th CTL Plenary Meeting 2009</td></tr>
</table>

Question:

A lot of battery chargers control the charging process with help of electronic circuits. Also safety functions (limiting of current, timer, etc.) are controlled by electronic circuits.

The cells of corresponding battery packs include a valve for opening if the pressure inside the cellis too high. This pressure increases, for example, if the electronics of the charger does not work in correct wayresulting in overloading ofthe battery pack. Is it possible to consider this valve like a safety valve for protection against abnormal conditions if the safety valve function is tested separately?

Decision:

Yes, but it is necessary to put in the instructions that only these batteries can be used.

Explanatory Notes:

The same decision (n.413) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-2-29：2002</td><td rowspan="3">条款号：
19.13</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0718</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF 1</td></tr>
<tr><td>主题：
非正常工作</td><td>关键词：
一特殊电池组</td><td colspan="2">2009 年第 46 届 CTL 会议的决议</td></tr>
<tr><td colspan="4">问题：
很多电池充电器通过电子电路来控制充电过程。并且一些安全相关的功能（极限电流、定时器等）也是通过电子电路来控制的。
电池组的电池包含一个阀，如果电池内部压力过大就会打开。
例如当充电器的电子元件没有以正确的方式工作时，引起电池组的过载，压力就会增加。
如果阀的功能单独测试，我们能不能把这个阀当作是一个用于保护非正常条件的安全阀？

决议：
同意，但是我们必须在说明书中说明仅仅能使用这些电池。
说明：
在 OSM/HA 决议目录上，相同的决议（n.413）已经存在。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): **IEC 60335–2–21:2002**	**Sub-clause(s):** **22.106**	**No.** **DSH 0719**	**Year** **2008**
Category: HOUS		**Developed by: ETF1**	
Subject: **Construction**	**Key words:** **- All–pole disconnection** **- Thermal cut–out**	**Decision approved at the 46th CTL Plenary Meeting 2009**	

Question:

Sub-clause 22.106 of standard IEC 60335-2-21 : 2002 states that, a closed water heater shall incorporate a thermal cut-out providing all-pole disconnection which operates independently from the thermostat.

Can the thermal cut-out and thermostat control the same contactor, when a contactor is used or are two contactors needed, one controlled by the thermal cut-out and one controlled by the thermostat?

Decision:

Two contactors or relays must be used because the contactor or relay may not operate if one set of independent contacts welds closed. See also 19.14 in IEC 60335-1 Ed 4.2..

Explanatory Notes:

This is in line with other parts 2 (2-37, 2-38 sub-clauses 19.4 added note 101).
The same decision (n.392) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-2-21：2002</td><td rowspan="3">条款号：
22.106</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0719</td><td>2008</td></tr>
<tr><td>分类：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
结构</td><td>关键词：
—全极断开
—热断路器</td><td colspan="2">2009 年第 46 届 CTL 会议的决议</td></tr>
<tr><td colspan="4">问题：
IEC 60335-2-21：2002 条款 22.106 中规定，密闭式热水器应装有提供全极断开的热断路器并且其动作独立于温控器。
当器具中有接触器时，热断路器和温控器能控制同一个接触器吗？或者需安装两个接触器，一个通过热断路器来控制，另外一个通过温控器来控制？

决议：
必须使用两个接触器或继电器，因为如果一个独立的接触焊点关闭，这个继电器或接触器就不会动作。也可以参见 IEC 60335-1 Ed 4.2 的 19.14 条款。
说明：
这个决议与其他第 2 部分标准的要求一致（2-37，2-38 条款 19.4 章节中的注：101）。
在 OSM/HA 决议目录上，相同的决议（n.392）已经存在。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): IEC 60335–1:2002	Sub-clause(s): 25.15	No.	Year
		DSH 720	2008
Category: HOUS		Developed by: ETF1	
Subject: **Detachable supply cords**	**Key words:** **- Cord anchorage test for fixed appliances**	Decision approved at the 2009 CTL Plenary Meeting	

Question:

How should the test of sub-clause 25.15 be performed on fixed appliances intended to be permanently connected to fixed wiring and having a mass between 1 and 4 kg?

Decision:

In sub-clause 25.15, fixed appliances are to be tested the same as appliances > 4 kg with a 100 N force, independently of the weight of the appliance, but with the torque according to the mass of the appliance.

Explanatory Notes:

This decision agreed with the position of IEC/TC61 in Tokyo (May 2008).
This decision is similar to OSM/HA decision n. 399.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2002</td><td rowspan="3">条款号：
25.15</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 720</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF 1</td></tr>
<tr><td>主题：
可拆卸电源软线</td><td>关键词：
一对固定式器具的电源线固定装置测试</td><td colspan="2">2009CTL 全会批准</td></tr>
<tr><td colspan="4">问题：
对重量为 1～4kg 的打算永久连接到固定布线的固定式器具，如何进行 25.15 条款的测试？

决议：
在条款 25.15 中，固定式器具不论其重量多少，按照大于 4kg 的器具一样经受 100N 的拉力进行测试的，但是试验扭矩是根据器具重量来决定的。
说明：
该决议与 IEC/TC 61 东京会议的立场一致（2008.5）。
该决议与 OSM/HA 决议 n.399 相似。</td></tr>
</table>

CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s):
IEC 60335-1:2002, (Ed 4.2)</td><td rowspan="3">Sub-clause(s):
19.11.2</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH 0721</td><td>2008</td></tr>
<tr><td>Category: HOUS</td><td colspan="2">Developed by: ETF1</td></tr>
<tr><td>Subject:
Abnormal operation</td><td>Key words:
- Dangerous malfunction</td><td colspan="2">Decision approved at the 2009 CTL Plenary Meeting</td></tr>
</table>

Question:

In clause 19.11.2 of IEC 60335-1 (Ed 4.2) failure conditions in items a) through g) apply to circuits continuously connected to the supply mains. The question is in relation to the conditions that are assessed after the 19.11.2 failure tests in stand-by mode operation:

Are tests of clause 19.11.3 and 19.11.4 applicable after the first failure resulting from clause 19.11.2 testing?

Decision:

The tests in 19.11.2 are done in a specific order and in such a way that at first a hardware failure according to 19.11.2 is applied in the Protective Electronic Circuit (PEC) and, then, second, the relevant tests of clause 19 protected by this PEC are applied conducted

It must be understood that if a hardware failure according to clause 19.11.2 is applied in the PEC under consideration and it causes a shut down, then as per 5.3, it is meaningless to apply the relevant test of clause 19 protected by this PEC.

However, it must also be understood that the PEC providing protection during the relevant test of clause 19 will have to be tested according to 19.11.2 as an electronic circuit. If during this test a shut down occurs, 19.11.3 requires that the 19.11.2 test is repeated with a fault in the circuit that caused the shut down.

Explanatory Notes:

The decision is in line with the MT 23 position
The same decision (n.405) is present in the OSM/HA decision list.

CTL 决议

标准： IEC 60335-1：2002（Ed 4.2）	条款号： 19.11.2	决议单号	年份
		DSH 0721	2008
类别：家电		制定者：ETF1	
主题： 非正常工作	关键词： —危险性故障	2009CTL 全会批准	

问题：

IEC 60335-1（Ed 4.2）的条款 19.11.2 中，a）～g）的故障条件施加在与电网持续连接的电路上。问题与 19.11.2 故障试验后状态的评估相关：

19.11.2 的试验出现第一次故障后，19.11.3 和 19.11.4 的试验是否适用？

决议：

19.11.2 的试验应按指定的顺序进行。首先，根据 19.11.2 在电子保护电路上施加硬件故障，其次对被电子保护电路所保护的情况进行 19 章相关试验。

需要理解的是如果根据 19.11.2 在电子保护电路上施加硬件故障，且导致器具关闭，那么根据 5.3，对被电子保护电路所保护的部分进行 19 章的测试无意义，但是，为 19 章相关实验提供保护的电子保护电路需（作为电子电路）按 19.11.2 测试。如果在该实验中某故障导致器具关闭，19.11.3 要求设置此故障重复进行 19.11.2 的试验。

说明：

该决议与 MT23 的意见一致。

同样的决议（n.405）在 OSM/HA 决议 n.405 列表中出现。

CTL DECISION SHEET

Standard(s): IEC 60335-1:2001	Sub-clause(s): 3.8.2	No. DSH 0722	Year 2008
Category: HOUS		Developed by: ETF1	
Subject: Definitions	Key words: - Stand by mode - ON/OFF position	Decision approved at the 2009 CTL Plenary Meeting	

Question:

Based on the definition in clause 3.8.2 and taking into account that a stand-by position is not always marked or identified, there is a need to differentiate the "off" and "stand-by" circuits. Differention shall be done at least in tests of clauses 19.11.2 and 22.46, in the appliance in which 19.11.2 is applicable in stand -by mode according to the relevant parts 2.

We would like to know if the stand-by circuit includes those parts that are energized when the appliance is in "0" position?

Decision:

In stand-by mode, only electronic components that are energized at any of their terminals are susceptible to be short circuited according to the clause 19.11.2 items a) through g) .

It was agreed that in terms of clause 19, the meaning of "off" correspond to circuits or components that are not energized at any of their terminals.

Explanatory Notes:

CLC/TC61, MT 23 and IEC/TC61 confirmed that for part 1 at this time 19.11.2 does not apply to stand-by circuits

The same decision (n.402) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2001</td><td rowspan="3">条款号：
3.8.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0722</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
定义</td><td>关键词：
—待机模式
—接通/断开位置</td><td colspan="2">2009 年 CTL 全会批准</td></tr>
</table>

问题：

基于条款 3.8.2 的定义并考虑到一个待机位置并不总是标明或有指示，有必要区分“关闭”和“待机”电路。在根据第 2 部分标准 19.11.2 适用于待机模式的器具中，至少条款 19.11.2 和 22.46 涉及的试验应区别对待。

我们想知道待机电路是否包括那些器具在“0”的位置时带电的部分？

决议：

在待机模式中，按照 19.11.2 条款 a）～g）只有在其端子上带电的电子零部件才容易受到短路影响。

在第 19 章中，“关闭”被认为是指电路或零部件的任何端子都不带电。

说明：

CLC/TC61、MT 23 和 IEC/TC61 确认，目前第 1 部分 19.11.2 不适用于待机电路。

同样的决议（ n. 402 ）在 OSM/HA 决议列表中存在。

CTL DECISION SHEET

Standard(s): IEC 60335-2-21:2002	Sub-clause(s): 24.102.2	No.	Year
		DSH 0723	2008
Category: HOUS		Developed by: ETF1	
Subject: Components	Key words: - Maximum water temperature	Decision approved at the 2009 CTL Plenary Meeting	

Question:

In IEC 60335-2-21:2002 / A1:2004 the last paragraph states:

The thermal cut-out shall operate before its temperature exceeds 110 °C. The water temperature shall not exceed by more than 20 °K the maximum permitted operating temperature of the thermal cut-out.

Considering the above statement, which is the maximum temperature of the water to be measured:

a) 130 °K(110 °K+ 20 °K) or
b) Maximum measured operating temperature of the thermal cut-out during test +20 °K?

Decision:

The correct interpretation is 130 °C. (option a)

Explanatory Notes:

This decision agreed with the position of IEC/TC61 in Tokyo (May 2008) and CLC/TC61 in Stockholm (June 2008)

A similar decision (n.412) is present in the OSM/HA decision list.

CTL 决议

<table>
<tr><td>标准：
IEC 60335-2-21：2002</td><td rowspan="2">条款号：
24.102.2</td><td>决议单号
DSH 0723</td><td>年份
2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
—零部件</td><td>关键词：
—最高水温</td><td colspan="2">2009CTL 全会批准</td></tr>
</table>

问题：

在 IEC 60335-2-21：2002 / A1：2004 最后一段：

热断路器在其温度超过 110℃之前必须动作。水温不能超过热断路器所允许的最大动作温度的 20K。

考虑到上一段，哪个是所测水温的最高值？

a）130℃K（110℃K＋ 20℃K）；

b）试验中所测的热断路器的最高动作温度＋20℃K？

决议：

正确的答案是 130℃（选项 a）。

说明：

该决议与东京（2008.5）IEC/TC61 和斯德哥尔摩（2008.6）CLC/TC61 会议立场一致。

一个类似的决议（n.412）已经在 OSM/HA 决议清单中。

CTL DECISION SHEET

Standard(s): IEC 60335–2–6:2002	Sub-clause(s): 19.102	No.	Year
		DSH 0725	2008
Category: HOUS		Developed by: ETF1	
Subject: Abnormal operation	Key words: - NTC - Thermal controls	Decision approved at the 2009 CTL Plenary Meeting	

Question:

In 19.102 of IEC 60335-2-6:2002, it is required to short-circuit the thermal control for the test. Note 5 of Sub-clause 19.1 of IEC60335-1:2006 explains that instead of short-circuiting, controls may be render inoperative.

In induction hobs, the thermal control of hob elements is normally a NTC controlled by the micro-controller. Short-circuit or open circuit of the NTC is easily detected by the micro-controller, but fixing the NTC in an intermediate value may not be detected.

IEC60730-1:2007, Annex J has the requirements for thermistors. There is a test for the drift of the R/T characteristic when the control is classified as Type 2.

Should the NTC be fixed at a specific value so as to render the thermal control inoperative, which is the condition required to be checked by 19.102?

Decision:

The NTC can be fixed to a specific value. This value must be in the middle of the operating range of the NTC, so as to avoid hysteresis problems that may happen towards the end of the range.

Explanatory Notes:

The intent is to set up the electronics so that the appliance continues to operate without the clause 11 control operating. Inspection of the circuit diagram may show that it is also possible to bypass the micro-controller to achieve the intent.

Decision confirmed by CLC/TC61 (November 2007). This decision is similar to OSM/HA 418.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-2-6：2002</td><td rowspan="3">条款号：
19.102</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0725</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
—非正常</td><td>关键词：
—NTC
—温度控制器</td><td colspan="2">2009CTL 全会批准</td></tr>
</table>

问题：

在 IEC 60335-2-6：2002 的 19.102 条款中，试验要求短路温度控制器。IEC 60335-1：2006 的子条款 19.1 的注 5 中解释说，可以使控制器不工作来代替控制器短路。

在电磁灶台中，灶头的温控通常是一个由微控制器控制的 NTC。NTC 的短路或者开路可以被微控制器轻易地监测到，但是将 NTC 设定在一个中间值可能不会被监测到。

IEC 60730-1：2007，附录 J 对热敏电阻控制器做出了要求。当控制器被归为 2 类时，针对电阻/温度（R/T）特性漂移会有一个试验。

是否该将 NTC 设定到一个特定值来满足让温度控制器处于不工作状态，即 19.102 要求的状态。

决议：

NTC 可以被设定到一个特定值。该值必须在 NTC 的工作区间范围的中间，以避免在工作区间范围边界可能发生的迟滞问题。

说明：

目的是为了建立一个电子系统来使得在第 11 章期间动作的控制器在不动作的情况下器具能持续工作。通过检查电路，可能会找到一个绕过微控制器来实现该目的的方法。

决议经 CLC/TC61 确认（2007.11）。此决议和 OSM/HA 418 类似。

CTL DECISION SHEET

Standard(s): IEC60335–1:2001+A1:2004+ A2:2006	Sub-clause(s): 27.1	No.	Year
		DSH 0726	2008
Category: HOUS		Developed by: ETF1	
Subject: **Provision for earthing**	**Key words:** - **Crimping connection** - **Protective conductor**	Decision approved at the 2009 CTL Plenary Meeting	

Question:

Is the wire for earthing contact, as shown in the photograph, acceptable considering that Sub-clause 27.1 of the present standard does not have any supplementary requirements for specially prepared conductors.

Decision:

The crimping system for the protective conductor as shown in the photograph can be accepted, since insulation is not required on protective earthing conductor.

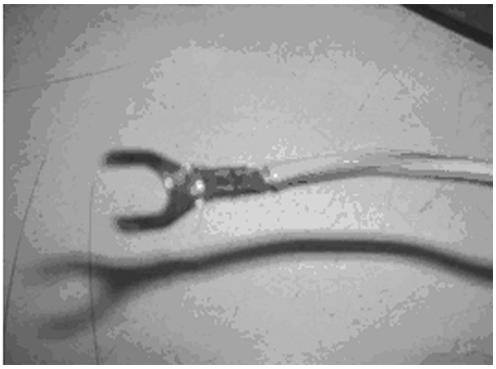
Explanatory Notes:

Decision confirmed by CLC/TC61 (November 2007). This decision is similar to OSM/HA 419

CTL 决议

<table>
<tr><td>标准：
IEC 60335-1：2001＋
A1：2004 ＋ A2：2006</td><td rowspan="2">条款号：
27.1</td><td>决议单号</td><td>年份</td></tr>
<tr><td>类别：家电</td><td>DSH 0726</td><td>2008</td></tr>
<tr><td></td><td></td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
接地</td><td>关键词：
一压接连接
一保护导体</td><td colspan="2">2009CTL 全会批准</td></tr>
<tr><td colspan="4">问题：
本标准 27.1 条款中没有关于专门制备导体的任何附加要求，照片中所示的接地线是否可接受。

决议：
如照片所示的保护导体的压接系统是可以接受的，因为保护接地导线并没有绝缘要求。
说明：
决议经 CLC/TC61 确认（ 2007.11）。这一决议与 OSM/HA419 类似。</td></tr>
</table>



CTL DECISION SHEET

Standard(s): IEC60335-1:2001+A1:2004+ A2:2006	Sub-clause(s): 29.1.3	No.	Year
		DSH 0727	2008
Category: HOUS		Developed by: ETF1	
Subject: Creepage and clearance	Key words: - Working voltage - Rated impulse voltage	Decision approved at the 2009 CTL Plenary Meeting	

Question:

Clause 29.1.3, reads: "29.1.3 Clearances of reinforced insulation shall be not less than those specified for basic insulation in table 16, but using the next higher step for rated impulse voltage as a reference."

The standard is not very precise about how to apply this clause in the situation for appliances having higher working voltages than rated voltage, for which the clearance are determined by interpolation, as described in clause in clause 29.1.5.

Examples:

1) Appliances with working voltage = rated voltage = 120V, overvoltage category II. For basic insulation, the rated Impulse voltage for 120V appliance = 1500V. For reinforced insulation, the rated impulse voltage to take into account is 2500V (category above 1500V).

2) Appliance with working voltage 300V AC, rated voltage 120V AC, overvoltage category II. For basic insulation, Impulse voltage determined following 29.1.5 =1754V.
For reinforced insulation, what is the correct impulse voltage ?
a) 2500V ?
b) 4000V ?
c) Value given by application of IEC60664-1:2007, clause 5.1.6: 160% * 1754 = 2800V ?
d) Others ?

Extract of clause 5.1.6 of IEC60664-1:2007:

> **"With respect to impulse voltages, clearances of reinforced insulation shall be dimensioned as specified in Table F.2 corresponding to the rated impulse voltage but one step higher in the preferred series of values in 4.2.3 than that specified for basic insulation. If the impulse withstand voltage required for basic insulation according to 4.3.3.4.2(parts or circuits within equipment specifically protected against transient over voltages) , is other than a value taken from the preferred series, reinforced insulation shall be dimensioned to withstand 160% of the impulse withstand voltage required for basic insulation.**

Decision:

(1) If the clearances applied for basic insulation are selected from table F.7 of IEC 60664-1, the clearances of reinforced insulation shall be dimensioned as specified in Table F.7 to withstand 160 % of the withstand voltage required for basic insulation.
(2) If the clearances applied for basic insulation are selected from clause 4 of IEC 60664-4, the clearances of reinforced insulation shall be twice the value required for basic insulation.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2001＋
A1：2004 ＋ A2：2006</td><td rowspan="3">条款号：
29.1.3</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0727</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
爬电距离和电气间隙</td><td>关键词：
—工作电压
—额定脉冲电压</td><td colspan="2">2009CTL 全会批准</td></tr>
</table>

问题：

条款 29.1.3：“29.1.3 加强绝缘的电气间隙应不小于表 16 对基本绝缘的规定值，但用下一个更高等级的额定脉冲电压值作为基准。”

标准不是非常明确当器具工作电压高于额定电压时如何应用此条款，此时电气间隙由插值法确定，如条款 29.1.5 所述。

举例：

1）器具工作电压＝额定电压＝120V，过电压类别为Ⅱ类。对基本绝缘，120V 器具的额定脉冲电压＝1500V。对加强绝缘，额定脉冲电压为 2500V（等级高于 1500V）。

2）器具工作电压为交流 300V，额定电压为交流 120V，过电压类别为Ⅱ类。对基本绝缘，脉冲电压取决于条款 29.1.5＝1754V。对加强绝缘，正确的脉冲电压是多少？

a）2500V？

b）4000V？

c）根据 IEC 60664-1：2007，条款 5.1.6 给定值：160％×1754＝2800V？

d）其他？

摘录 IEC 60664-1：2007 条款 5.1.6 ：

“关于脉冲电压，加强绝缘的电气间隙应根据表 F.2 的规定来测量，相应的额定脉冲电压为 4.2.3 中指定的基本绝缘对应值的更高一个等级。如果按照 4.3.3.4.2（设备内部具有特定瞬时过电压保护的零部件或者电路）的基本绝缘脉冲电压不是指定系列中的值，加强绝缘应经受住基本绝缘所要求脉冲的 160％”。

决议：

（1）如果基本绝缘的电气间隙根据 IEC 60664-1 表 F.7 来选择，加强绝缘的电气间隙应根据表 F.7 来计算，经受基本绝缘所要求的耐压的 160％。

（2）如果基本绝缘的电气间隙根据 IEC 60664-4 条款 4 来选择，加强绝缘的电气间隙应为基本绝缘规定值的两倍。

Explanatory Notes:

The above decision is extracted from the sub-clause 29.1.5 of 61/3725/CDV
This decision is similar to OSM/HA 423

说明：

以上决议摘自 61/3725/CDV 子条款 29.1.5。

此决议类似于 OSM/HA 423。

CTL DECISION SHEET

Standard(s): IEC60335-1:2001+A1:2004+ A2:2006	Sub-clause(s): 8.1.5	No.	Year
		DSH 0728	2008
Category: HOUS		Developed by: ETF1	
Subject: **Protection against electric shock**	Key words: **- Installation** **- Fixed appliance**	Decision approved at the 2009 CTL Plenary Meeting	

Question:

The hand dryer shown in the photograph is typical of those encountered in offices, restaurants and hotels . These hand dryers usually have similar characteristics and mounting method:

The external cover has to be removed, the body of the apparatus is fixed to the wall, cabling from the installation is passed through a hole in the back side and connected to the terminals of the apparatus.
In addition to the terminals, the hand dryer shown in the photograhp has a printed circuit board with its components and live parts is accessible, when the front cover is removed for connection to the installation cabling.
Does this construction comply with the clause 8.1.5?

Decision:

Subclause 8.1.5 requires built-in appliances to be protected at least by basic insulation "before installation or assembly". The construction is thus in compliance with the standard.

Explanatory Notes:

This decision is similar to OSM/HA 420

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60335-1：2001 ＋
A1：2004 ＋ A2：2006</td><td rowspan="3">条款号：
8.1.5</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0728</td><td>2008</td></tr>
<tr><td>类别：家电</td><td colspan="2">制定者：ETF1</td></tr>
<tr><td>主题：
防电击保护</td><td>关键词：
—安装
—固定式器具</td><td colspan="2">2009 年 CTL 全会批准</td></tr>
<tr><td colspan="4">问题：
如图所示的干手器为办公室、餐馆和旅店经常遇到的。这些干手器通常具有类似特征和安装方法：
外壳要被拿掉，器具的主体部分固定到墙上，安装用的电缆穿过器具背部的一个孔并连接到器具端子。
除了端子以外，当为了连接电缆将前盖去掉后，如图所示的干手器有一个带有零部件和带电部件的印制电路板可触及。
这个结构符合 8.1.5 条吗？

决议：
8.1.5 条要求嵌装式器具“在安装或组装之前”至少有基本绝缘防护。因此这个结构符合标准。
说明：
此决议类似于 OSM/HA 420。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): IEC 60335-1:2001;Amendment 1 and 2	Sub-clause(s): 19.11.1/2/3/4 and 22.46	No.	Year
		DSH 730	2009
Category: HOUS		Developed by: ETF1	
Subject: Abnormal operation and construction	Key words: - PEC - Software types	Decision approved at the 2009 CTL Plenary Meeting	

Question:

(1) In the construction shown in the figure, NTC1+micro+T1 operate as a thermostat for the heating element, R. The heating element does not have integral protection. During the application of the requirements in clause 19.11.2, transistor T1is shorted and NTC2+micro+T2 operates as a thermal cut-out to comply with sub-clause 19.13.

a.- Are NTC2+micro+T2 considered as a PEC?
b.- If so, are the clauses 19.11.3 (additional fault), 19.11.4 (immunity) and 22.46 (software classification) applicable?
c.- Considering that the thermostat software and the thermal cut-out software are separate parts of code, what software classes are applicable to the thermostat and the thermal cut-out?

(2) For the same construction, the manufacturer changes the parameters of NTC2 in such a way that NTC2+micro+T2 do not operate as a thermal cut-out but as redundant thermostat at the same temperature as the normal thermostat. Under the same conditions of the test in clause 19.11.2, short circuiting of T1, the heating element operates as in normal operation to comply with sub-clause 19.13.

d- Are the electronic circuit or some of its parts considered as a PEC?
e.- If so, are the clauses 19.11.3 (additional fault), 19.11.4 (immunity) and 22.46 (software classification) applicable?
f- Considering that the thermostats have separated software, what software classes are applicable?

Decision:

(1)

a- Yes
b- All sub-clauses are applicable
c- Taking into account that short circuit of T2 has to be considered in 19.11.2, then the thermostat is considered as a PEC too. Software class for T2 shall be at least B, and the software class for T1 is class A, B or C.

(2)

d- Yes, the temperature control of the circuit (T1+T2+micro+NTC1+NTC2)is considered as a PEC
e- All sub-clauses are applicable
f- Both software have to be class B

Explanatory Notes:

The figure is just a simplified schematic to help define the tests that have to be applied .This decision is to the draft of the 5th edition of IEC60335-1,61/3725/CDV,-although the reference to the software classes are deleted.

CTL 决议

标准： IEC 60335-1：2001； Amendment 1 and 2	条款号： 19.11.1/2/3/4 and 22.46	决议单号	年份
		DSH 730	2009
类别：家电		制定者：ETF1	
主题： 非正常工作和结构	关键词： —PEC（保护电子电路） —软件类型	2009CTL 全会批准	

问题：

（1）结构如图所示，NTC1＋微处理器＋T1 以一个加热元件 R 的温控器的方式动作。发热元件没有内置保护。按照 19.11.2 的要求，晶体管 T1 短路，NTC2＋微处理器＋T2 以热断路器的方式动作以符合条款 19.13。

a. NTC2＋微处理器＋T2 是否认为是保护电子电路？

b. 如果是，条款 19.11.3（额外的故障）、19.11.4（抗干扰）和 22.46（软件评估）是否适用？

c. 考虑到温控器软件和热断路器软件是独立编码的，温控器和热断路器适用于什么级别的软件？

（2）对于相同的结构，制造商通过改变 NTC2 的参数，使 NTC2＋微处理器＋T2 不作为一个热断路器，但作为一个与正常温控器在相同温度下动作的冗余温控器。在与试验条款 19.11.2 相同的条件下短路 T1 ，电热元件正常动作，以符合条款 19.13。

d. 电子电路或其某些部分是否视为保护电子电路？

e. 如果是，条款 19.11.3（额外的故障）、19.11.4（抗干扰）和 22.46（软件评估）是否适用？

f. 考虑到温控器软件是独立软件，哪个软件等级适用？

决议：

（1）

a-是的；

b-所有子条款适用；

c-必须在 19.11.2 中考虑到短路 T2，此时温控器也被视为保护电子电路。T2 的软件类型至少为 B，T1 的软件类型为 A、B 或 C。

（2）

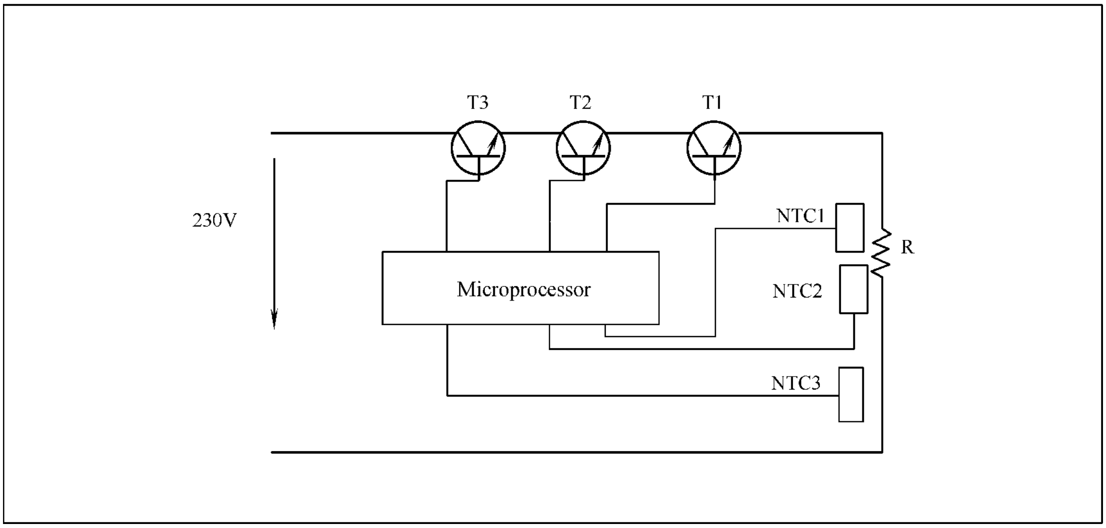
d-是的，温度控制电路（T1＋T2＋微处理器＋NTC1＋NTC2）为保护电子电路；

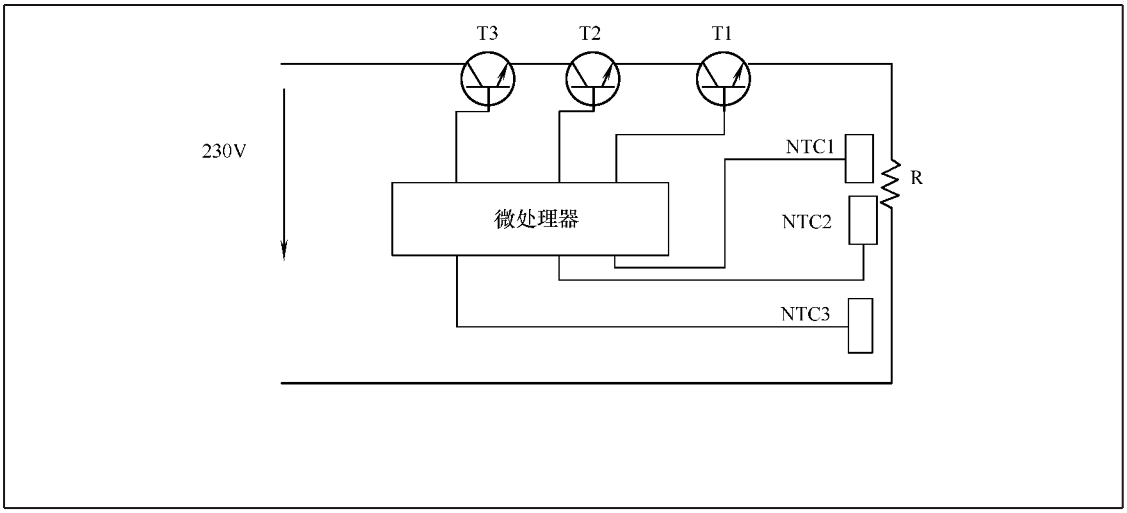
e-所有子条款适用；

f-两个软件等级都为 B。

说明：

这个图片仅仅是一个简化的示意图，以帮助确定适用的测试，这一决议的依据是 IEC 60335-1 第 5 版，61/3725/CDV，虽然草案中删除了参考的软件等级。


T3
T2
T1
230V
NTC1
R
Microprocessor
NTC2
NTC3


T3
T2
T1
230V
NTC1
R
微处理器
NTC2
NTC3

4. INST 安装附件及连接器材

CTL DECISION SHEET

Standard(s)–(year and edition): IEC 60884–1:1994	Sub clause(s): 13.4	Sheet n° DSH–528
Subject: Correct positioning of conductors	Key words: Positioning, Conductors	CTL DSH approved by the 45th CTL Plenary Meeting

Question:

Is it required that the terminals can be tightened after mounting of the socket-outlet on the wall or in the box?

Decision:

No, this is not required. The standard in fact includes constructions with terminals placed on the front and constructions with terminals placed on the rear part of the socket outlets.

Explanatory notes:

Acceptance of OSM/IN decision 015.
According to WG4/IECSC23B interpretation. See OSM/IN 048.

CTL 决议

标准： IEC 60884-1：1994	条款号： 13.4	决议单号： DSH-528
主题： 导线的正确定位	关键词： 一定位 一导线	第 45 次 CTL 全会批准

问题：

固定式插座安装在墙上或安装在安装盒里之后，是否要求其端子仍能被锁紧？

决议：

不要求。事实上本标准包含了两种插座的结构情况，一种结构是端子在插座的前面，另一种结构是端子在插座的背面。

说明：

接受 OSM/IN 决议 015。

依照 WG4/IECSC23B 的解释。见 OSM/IN 048。

CTL DECISION SHEET

Standard(s)–(year and edition): IEC 60884–1:1994	Sub clause(s): 14.5	Sheet n. DSH–529
Subject: Sufficient resiliency in socket–contact assembly in order to ensure adequate contact pressure	Key words: Resiliency in socket contact	CTL DSH approved by the 40th CTL Plenary Meeting.

Question:

Is it acceptable that contact pressure relies fully or partly on plastic material?

Decision:

No, it is not acceptable that contact pressure relies fully or partly on plastic material.
Each socket contact of the multiple socket rail shall be subject to the test of clause 22.2 of IEC 60884-1, but with the rails removed from the socket outlet. The minimum withdrawal forces shall be:

- 1,5N for multiple socket-outlets up to 10 A.
- 2N for multiple socket-outlets above 10A up to and including 16A.
- 3N for multiple socket-outlets above 16A up to and including 32A.

This test ensures that the resiliency of the contacts does not rely on the pressure against the thermoplastic parts of the socket casing.

Explanatory notes:

Acceptance of OSM/IN decision 016.
Contact rails in multiple portable socket-outlets and adapters are often made of two metal strips (parts), which are sometimes not connected mechanically. Exposing of fire in multiple portable socket-outlets is in general caused by bad contact pressure of the contact tube (contact rail).

CTL 决议

<table>
<tr><td>标准：
IEC 60884-1：1994</td><td>条款号：
14.5</td><td>决议单号：
DSH-529</td></tr>
<tr><td>主题：
插座的插套组件应有足够的弹性，能确保有足够的接触压力</td><td>关键词：
一插座插套的弹性</td><td>第 40 次 CTL 全会批准</td></tr>
<tr><td colspan="3">问题：
是否允许接触压力全部或部分依靠绝缘材料提供？

决议：
不允许接触压力全部或部分依靠绝缘材料提供。多位插座中连接组件的每个插套都须经受 IEC 60884-1 条款 22.2 的试验，试验过程中应把连接组件从插座中移出。
最小拔出力是：
• 对于额定电流不大于 10A 的多极插座，1.5N。
• 对于额定电流大于 10A，小于等于 16A 的多极插座，2N。
• 对于额定电流大于 16A，小于等于 32A 的多极插座，3N。
本试验的目的是确保插套的弹性不依靠其周围的热塑性塑料部件传递。
说明：
接受 OSM/IN 决议 016。
移动式多位插座和转换器的连接组件一般是由两根金属条（零部件）组成，它们之间的连接有时并不是机械连接。移动式多位插座的着火很多时候是由于插套（连接组件）的接触压力不足导致的。</td></tr>
</table>

CTL DECISION SHEET

Standard(s)–(year and edition): IEC 60884–1:1994	Sub clause(s): 25.3	Sheet n DSH–530
Subject: **Ball pressure test for plugs that cannot be rewired.**	**Key words:** **Ball pressure test**	**CTL DSH approved by the 40th CTL Plenary Meeting.**

Question:

Should the ball-pressure test be conducted for PVC plugs that cannot be rewired?

Decision:

No, the ball-pressure test shall not be conducted for PVC plugs that cannot be rewired.

Explanatory notes:

Acceptance of OSM/IN decision 018.

CTL 决议

标准： IEC 60884-1：1994	条款号： 25.3	决议单号： DSH-530
主题： 不可拆线插头的球压试验	关键词： —球压试验	第 40 次 CTL 全会批准

问题：

球压试验是否适用于不可拆线的 PVC 插头？

决议：

球压试验不适用于不可拆线的 PVC 插头。

说明：

同意 OSM/IN 决议 018。

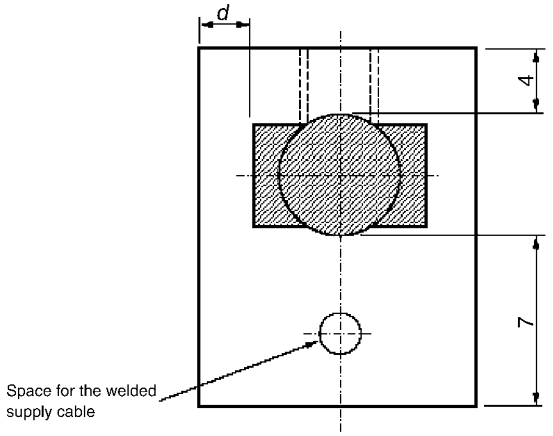
CTL DECISION SHEET

Standard: IEC 60884-1:2002+A1:2006	Sub clause: 19; Fig.44	Sheet n°: DSH-658
Subject: **Temperature rise**	**Key words:** **clamping units for temperature rise test of plug**	**Decision approved by the 46th CTL plenary Meeting 2009**

Question:

Plugs are tested as follows.

Clamping units having the dimensions specified in Figure 44 are fitted on each live pin and earthing pin, if any, of the plug together with the thermocouple. The screw is then placed approximately in the middle of the bare part of the pin and tightened with a torque of 0.8 Nm.



The standard does not specify the cross-sectional area and length of the conductor that shall be welded to the clamping unit.

Decision:

To weld on the clamping unit of figure 44, a rigid conductor having a cross-sectional area equal to that given in Table 15 used for the test of the corresponding fixed accessories (for example 2.5mm^2 for 16 A socket-outlets) and a length of at least 1m.

Explanatory notes:

None

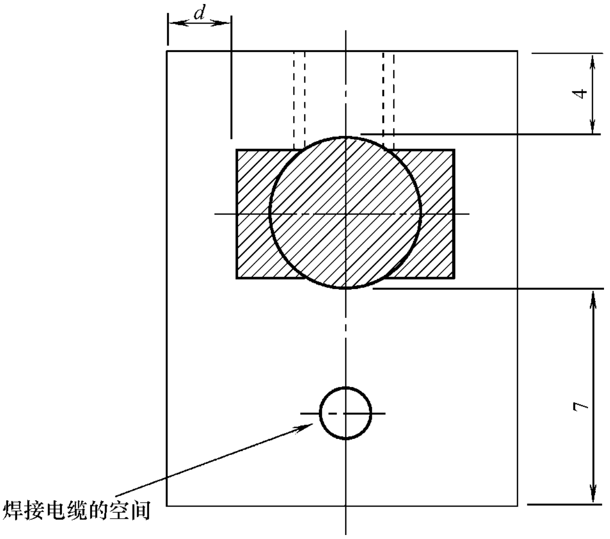
CTL 决议

标准： IEC 60884-1：2002＋A1：2006	条款号： 19；图 44	决议单号： DSH 658
主题： 温升测试	关键词： —用于插头温升测试的夹紧件	2009 年第 46 次 CTL 全会批准

问题：

插头按下述说明进行测试。

把符合图 44 尺寸要求的夹紧件装在插头的每一个带电插销和接地插销（如有）上并装上热电偶，用 0.8Nm 的扭矩拧紧夹紧件螺钉，螺钉应该固定在插销的中心部位。



标准中没有规定焊接到夹紧件上的试验用导线的截面积和长度。

决议：

应使用标准表 15 中对应固定式电器附件测试用的截面积的硬导线（例如 16A 固定式插座使用 2.5mm^2 的硬导线）焊接到图 44 的夹紧件上，导线长度至少为 1m。

说明：

无

5. LASR 激光设备

CTL DECISION SHEET

Standard: IEC/EN 60598-1 IEC 60825-1/1993 (*) EN 60825-1/1994 (#)	Sub clause: General	Sheet N°: 003/06.m CTL-ETF5 CIG-OSM/LUM Page: 1(1)
Subject: LEDs used as a light source in luminaires	**Key words:** - LEDs - Harmful radiation - Light intensity	**Meeting:** Decision confirmed at CTL 45th meeting

Question: Due to possible harmful radiation, what requirements are to be applied to LEDs?

Decision: In principle, apply the requirements given in IEC/EN 60825-1 (*)-(#). However in order to avoid expensive measurements, luminaires provided with LEDs should be treated as follows:

- If the light intensity is low, i.e. from a conventional LED for indication or signalling purposes, the LED is most likely comparable with a laser of Class 1 according to IEC/EN 60825-1 (*)-(#) and consequently there is no need for measurements. During the judgement, the covers, optics and similar parts that can be removed by hand, shall be removed. In the TRF, it is indicated that the light intensity has been judged to comply with the limits given for Class 1 lasers in IEC/EN 60825-1 (*)-(#) and that no measurement is made.
- In all other cases the luminaire manufacturer shall be asked to provide a declaration based on relevant tests (e.g. from the LEDs manufacturer) showing that the radiation from the LED module does not exceed the values given in IEC/EN 60825-1 (*)-(#) for Class 1 or1M lasers with or without optics. In the TRF, it is indicated that judgement is based on manufacturer's declaration.
- If such a declaration is not provided or if judgement not possible, the measurements given in IEC/EN 60825-1 (*)-(#) shall be performed. In the TRF, it is indicated that measurements have been performed. For luminaires containing light sources providing radiation according to Class 2 lasers, the luminaire shall be treated as a laser source according to IEC/EN 60825-1 (*)-(#) and comply with the requirements given in that standard.

Information about the action taken in relation to the LED radiation should be provided in the square "Summary of testing" on page 2 of the relevant TRF.

(*) + A1/1997 + A2/2001
(#) + A1/2002 + A2/2001

Explanatory notes: This Decision Sheet shall apply until relevant requirements are introduced in IEC/EN 60598-1.

CTL 决议

标准：	条款号：	决议单号：
IEC/EN 60598-1 IEC 60825-1/1993（*） EN 60825-1/1994（#）	通用	003/06. m CTL-ETF5 CIG-OSM/LUM 页 1（1）
主题： LED 在灯具中被视为光源使用	关键词： -LED -有害辐射 -光强	会议： 该决议在 CTL 第 45 次会议上通过

问题：

鉴于可能产生的有害辐射，对 LED 有哪些适用要求？

决议：

原则上采用 IEC/EN 60825-1（*）-（#）要求。但为了避免昂贵的测试费用，带 LED 光源的灯具应采用如下方法：

— 如果光强较低，也就是说，用作指示或信号用的传统意义上的 LED 光源，根据 IEC/EN 60825-1（*）-（#），大部分等同于 1 类激光，没有测试的必要。在判断过程中，可以用手取下的盖子、光学系统及类似部件应取下。在测试报告格式中应说明，经判定，光强符合 IEC/EN 60825-1（*）-（#）中 1 类限值的说明，没有进行测量。

— 在其他情况下，灯具制造商应提供基于相关测试的声明（例如来自 LED 制造商），表明从带或不带光学系统的 LED 模块发出的辐射不会超过 IEC/EN 60825-1（*）-（#）中的 1 类或 1M 类激光限值。在测试报告格式中注明所作的判断根据生产厂家的声明。

— 如果没有提供这样的声明或我们不确定如何判断，应按照 IEC/EN 60825-1（*）-（#）中给出的方法进行测试。在报告格式中应表明已经完成了测量。对于带有符合 2 类辐射光源的灯具，应按照激光光源处理，并符合 IEC/EN 60825-1（*）-（#）标准中的要求。

有关 LED 辐射的相关措施应在相应测试报告格式第 2 页“试验摘要”方格中给出。

（*）＋A1/1997＋A2/2001

（#）＋A1/2002＋A2/2001

说明：

在 IEC/EN60598-1 中对相关内容做出要求前，本决议内容一直适用。

6. LITE 照明设备

CTL DECISION SHEET

Standard: **IEC/EN 60598-1** **IEC/EN 60598-2-6** **IEC/EN 61347-2-11** **IEC/EN 61347-2-13** **IEC 60825-1/1993 (§)** **EN 60825-1/1994 (#)**	**Sub clause: General** **Section 12**	**Sheet N°: 005/07** **CTL-ETF5** **CIG-OSM/LUM** **Page: 1(1)**
Subject: Luminaires provided with LEDs	**Key words:** **- Control gears** **- Section 12** **- IEC/EN 60825-1 (§) - (#)**	**Meeting:** **Decision confirmed at CTL 45th meeting**

Question: Is it possible to approve luminaires provided with LEDs?

Decision: Yes, provided that:

- the LED circuit shall be verified according to IEC/EN 61347-2-13 or IEC/EN 61347-2-11 (*) and the LED shall be tested according to IEC/EN 60825 –1 (Safety of laser products) (§)-(#), if it has laser radiation in the wavelength ranging from 180nm to 1mm. Only LEDs classified as Class 1 lasers can be used without problems for lighting purposes without protection.
- The thermal tests required in Section 12 of IEC/EN 60598-1 shall be carried out as follows:
  a) Luminaires (Class I or II) with built-in control gear shall be tested according to the requirements of IEC/EN 60598-2-6.
  b) For Class III luminaires the manufacturer shall provide the necessary information to power up the LED circuit correctly in the instruction sheet. Alternatively, the manufacturer shall inform Testing Station about the trade mark, the type and the technical characteristics of the appropriate control gear to be used. There are three different control gears namely, the type and the trade mark as indicated by the luminaire manufacturer; an electronic control gear clearly specified in the luminaire instruction sheet and a ferromagnetic control gear. The tests shall be carried out as required in Section 12 according to IEC/EN 60598-2-6 with the appropriate control gear.

(*) When IEC/EN 62031 (34A/1168/CDV) will be published, it will takes over IEC/EN 61347-2-11.
(§) + A1/1997 + A2/2001
(#) + A1/2002 + A2/2001

Explanatory notes: The matter is under discussion in Lumex/Comex; we will wait for the relevant outcome.

CTL 决议

标准： IEC/EN 60598-1 IEC/EN 60598-2-6 IEC/EN 61347-2-11 IEC/EN 61347-2-13 IEC 60825-1/1993（§） EN 60825-1/1994（♯）	条款号： 通用条款第 12 条	决议单号： 005/07 CTL-ETF5 CIG-OSM/LUM 页：1（1）
主题： LED 灯具	关键词： —控制装置 —第 12 部分 —IEC/EN 60825-1（§）-（♯）	会议： 该决议在 CTL 第 45 次会议上通过

问题：

可以对装有 LED 的灯具进行认证吗？

决议：

可以。条件如下：

— LED 电路应按照 IEC/EN 61347-2-13 或 IEC/EN 61347-2-11（＊）进行测试，如果在 180nm～1mm 波长范围内有激光辐射，LED 光源应按照 IEC/EN 60825-1（激光产品的安全）（§）-（♯）进行测试。当用于照明时，只有 1 类激光的 LED 光源可以不采用保护措施。

— IEC/EN 60598-1 第 12 章规定的热试验应按照以下方法进行：

a）带内装式控制装置的灯具（I 或 II 类）应按照 IEC/EN 60598-2-6 进行测试。

b）Ⅲ类灯具：灯具制造商应在说明书中提供能给 LED 电路正确通电的必要信息。或者给检测站提供关于适宜的控制装置的商标、型号、技术参数等信息。可以有三种不同的控制装置：灯具制造商指定的型号和商标；灯具说明书中清楚规定的电子控制装置；电感控制装置。对相应的控制装置，试验应根据 IEC/EN 60598-2-6 第 12 章的要求进行。

(*) 当 IEC/EN 62031（34A/1168/CDV）出版，将取代 IEC/EN 61347-2-11。

（§）＋A1/1997＋A2/2001

（♯）＋A1/2002＋A2/2001

说明：

这个问题 Lumex/Comex 还处于讨论阶段，我们将等待有关结果的得出。

CTL Decision

Standard: IEC 60598-1/2003	Sub clause: 8.2.1	Sheet N° 089/06.m CTL-ETF5 OSM/LUM Page: 1(1)
Subject: Luminaires with LEDs	Key words: - Sub clause 8.2.1 - Lamp compartment - Two lines of defence	Meeting: Decision approvd at CTL 46th meeting

Question: Not all luminaires with LEDs used for normally lighting are supplied with SELV control gears. From the user point of view, light source within the luminaire enclosure is not considered as failure against electric shock,Sub clause 8.2.1 requires protection against electric shock even if the operation cannot be achieved by hand. We heard that other Test Houses allow the accessibility of live LEDs units after opening of the lamp compartment with normal tools, such as screwdrivers,coins or other object that may be used to operate a screw or similar fixing means.

Decision: The requirements of sub clause 8.2.1 shall be applied also for luminaires with LEDs. The LED unit, whether connected to the internal supply with terminals or connectors, shall be considered as a replaceable light source according to the requirements of the standard. If the LED unit is not replaceable and/or not fed by a SELV source it shall not be possible to open the lamp compartment with normal tools or the live parts shall be insulated by an insulation corresponding to basic insulation for 230V.

Explanatory notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

标准： IEC 60598-1/2003	条款号： 8.2.1	决议单号： 089/06.m　CTL-ETF5 OSM/LUM 页：1（1）
主题： LED 灯具	关键词： — 8.2.1 条款 — 灯具零部件 — 双重防护	会议： CTL 第 46 次全体会议批准

问题：

不是所有用于一般照明的灯具都带有 SELV 控制装置。光源在灯具罩壳里。从用户角度而言，通常不视为防触电保护失败。8.2.1 条款要求即使工作状态手不能触及也应有防触电保护。我们听说其他检测机构允许用通用工具（例如螺钉旋具、硬币或其他工具来操作螺钉或类似的固定装置）打开光源腔后可以触及 LED 的带电装置。

决议：

8.2.1 条款要求应同样适用于 LED 灯具。独立的 LED 装置，无论用接线端子还是用连接器连接到内部电源，按照本标准的要求，均被视作为一个可替换的光源。如果光源不可替换和/或不由 SELV 源供电，用通用工具应不能打开光源腔或者带电部件应使用相当于 230V 基本绝缘的绝缘层加以隔离。

说明：

OSM/LUM 从现在开始采用这个决议。

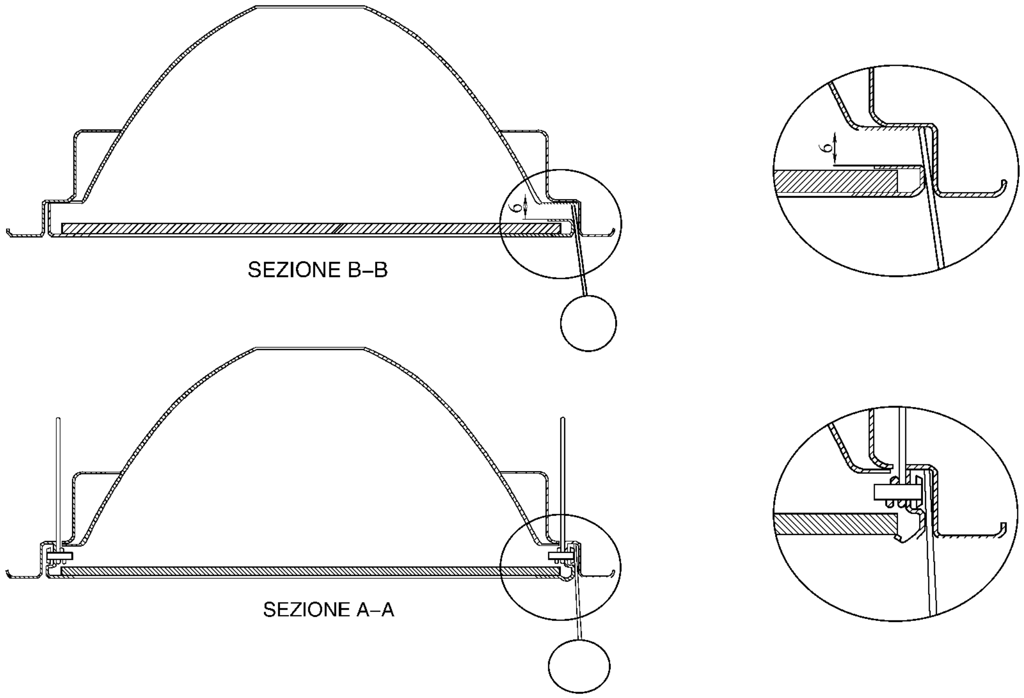
CTL DECISION SHEET

Standard(s): IEC 60598-1/2003 A1/2006	Subclause(s): 9.2.0	No.	Year
		DSH 0701	2008
Category: LITE		Developed by: ETF5 OSM/LUM	
Subject: IP 40	Key words: - IP 40 - Luminaire enclosure - No entry - IEC 60529	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

Clause 9.2 f) requires the follow - *"No entry into the luminaire enclosure by the relevant test probe for first characteristic IP numeral 3 and 4".*

We have an example in which it is not so easy to evaluate if the test probe has entered the luminaire.As shown in SEZIONE B–B below, the test probe is positioned next to a slot which is 6mm width during test.Is the luminaire considered as complying with Clause 9.2 f)?



Decision:

The enclosure is not IP 40.

Explanatory Notes:

For OSM/LUM this decision is applicable from now on.

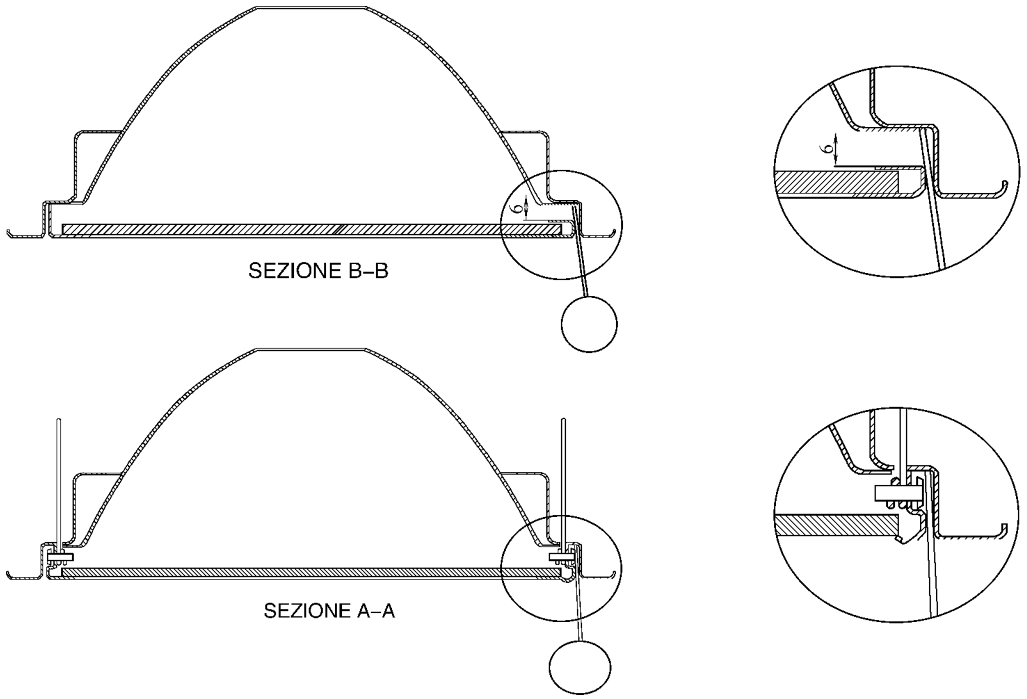
CTL 决议

标准： IEC 60598-1/2003 A1/2006	条款号： 9.2.0	决议单号：	年份
类别：照明设备		DSH 0701	2008
主题：IP40	关键词： — IP 40 — 灯具外壳 — 没有进入 — IEC 60529	在 2009 年 CTL 第 46 次全体会议中批准	

问题：

第 9.2 f）条款要求：第 1 位 IP 特征数字为 3 和 4 的灯具，相关的试具不能进入灯具外壳。

我们有一个不太容易评估的实例：试验探针有没有进入灯具防护外壳。详见下图 SEZIONE B-B 所示，试验探针可以进入一个 6mm 宽的插槽内，是否认为灯具符合条款 9.2 f)？



决议：

这种防护不符合 IP40。

说明：

对于 OSM/LUM，本决议从现在开始执行。

CTL DECISION SHEET

Standard(s): IEC 60598-1/2003 A1/2006 EN 60598-1/2004 A1/2006	Subclause(s): General 1.2.60 2.2	No.	Year
		DSH 0702	2008
Category: LITE		Developed by: ETF5 OSM/LUM	
Subject: T8 to T5, T8 to T8 and similar lamp adaptors (including ditto with LED)	Key words: - Retro-fit conversion units - Semi luminaires - Lamp adaptors	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

In respect of document 34D/891/INF (enclosed), how do we deal with the units in question?
This issue has been dealt with earlier, before the SC 34D document was issued.The document in question is developed by the most competent experts on the technique concerned here and the outcome is that the products of the relevant kind can from several points of view not ensure the safety of the converted luminaire without a retest of the luminaire concerned.

Moreover, other features, such as EMC, compability with Emergency Lighting Luminaires, lamp operation, marking, legal, illuminance, environmental, light distribution, energy efficiency etc. is not properly covered and must consequently be carefully considered.

Decision:

The organisation modifying a luminaire has full responsibility for the converted luminaire with respect to safety, EMC compability, lamp operation, marking, illuminance, environmental features, lighting distribution and legal responsibilities.This product can only be certified together with theconversion unit, i.e.a complete recertification must be done.This responsibility remains even if the converted luminaire is subsequently returned to it original condition (i.e.removal of the conversion unit), since damage to the original luminaire may have occurred.
This is also applicable to similar products containing LED.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td>标准：IEC 60598-1/2003
A1/2006
EN 60598-1/2004
A1/2006</td><td rowspan="2">条款号：通用条款
1.2.60
2.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td></td><td>DSH 0702</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td></td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
T8 到 T5、T8 到 T8，和类似的灯转换器（包括类似的 LED 装置）</td><td>关键词：
— 改装的转换装置
— 半灯具
— 灯转换器</td><td colspan="2">2009 年第 46 次 CTL 全体会议批准</td></tr>
</table>

问题：

关于 34D/891/INF 文件，我们怎样处理本问题中的装置？

在 SC 34D 文件公布前，已经处理过这个问题。SC34D 文件是由专家们确定的。结果是这类产品如果不通过重新测试就不能确保改造过的灯具是安全的，而且其他方面，例如：EMC、应急灯具的兼容性、灯的工作状态、标记、法律、照度、环境、光的分布、能效等，也不能适当地覆盖，因此必须仔细考虑。

决议：

改装灯具的产品责任人对改造过的灯具在安全、EMC 兼容性、灯的工作状态、标记、照度、环境特征、光的分布和法律责任等方面有完全的责任。产品只能和改造装置一起认证，换句话说，就是必须重做完整的认证。而且，即使改造过的灯具随后又恢复到它初始的状态（例如：把改造的装置拿掉），该产品责任人也还是要承担责任，因为对原来灯具的损坏可能已经发生。

这也适用于包含 LED 的类似产品。

说明：

对于 OSM/LUM，本决议从现在开始执行。

CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s): IEC 60598-1/2003 A1/2006
EN 60598-1/2004 A1/2006</td><td rowspan="3">Subclause(s): 8.2.3</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH 0703</td><td>2008</td></tr>
<tr><td>Category: LITE</td><td colspan="2">Developed by: ETF5 OSM/LUM</td></tr>
<tr><td>Subject: Luminaire with PGZ12 lamp cap</td><td>Key words:
- PGZ12
- Metal part of the lamp cap
- Class II luminaire</td><td colspan="2">Decision approved at the 46th CTL Plenary Meeting, in 2009</td></tr>
</table>

Question:

Is it possible to accept a class II luminaire designed for PGZ12 lamp, where the non-current-carrying parts of the lamp cap are in contact with accessible metal parts?

Decision:

Not accepted, as the lamp standard IEC 62035 does not require double or reinforced insulation.

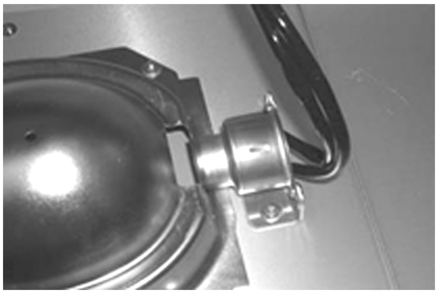
Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：IEC 60598-1/2003
A1/2006
EN 60598-1/2004
A1/2006</td><td rowspan="3">条款号：8.2.3</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0703</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
带 PGZ12 灯头的灯具</td><td>关键词：
— PGZ12
— 灯头的金属部分
— Ⅱ类灯具</td><td colspan="2">2009 年第 46 次 CTL 全体会议批准</td></tr>
</table>

问题：

为 PGZ12 光源专门设计的Ⅱ类灯具，灯头的非载流部件和可触及金属部件连接，可以接受吗？



决议：

不能接受，因为光源标准 IEC 62035 没有要求双重绝缘或加强绝缘。

说明：

对于 OSM/LUM，本决议从现在开始执行。

CTL DECISION SHEET

Standard(s): IEC 60598-1/2003 A1/2006 EN 60598-1/2004 A1/2006	**Subclause(s):** 11	**No.** DSH 0704	**Year** 2008
Category: LITE		**Developed by:** ETF5 OSM/LUM	
Subject: Touch lamp	**Key words:** - Touch lamp - Controllers - Capacitors	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

(1) What is the applicable standard for the controller of a touch lamp?

(2) What are the requirements regarding wire connection to metal and the live parts?

(3) What are the requirements for the connection of live parts and wire connected to metal through capacitors?Is one capacitor acceptable or do we need two in series?

Decision:

The standard applicable is IEC 61058.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：IEC 60598-1/2003
A1/2006
EN 60598-1/2004
A1/2006</td><td rowspan="3">条款号：11</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0704</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
触摸灯</td><td>关键词：
— 触摸灯
— 控制器
— 电容器</td><td colspan="2">2009 年 CTL 第 46 届全体会议批准</td></tr>
<tr><td colspan="4">问题：
（1）触摸灯的控制器适用什么标准？
（2）与金属零部件和带电零部件的导线连接有什么要求？
（3）带电零部件、导线通过电容器与金属零部件连接有什么要求？需要一个电容，还是两个串联？

决议：
IEC 61058 标准适用。

说明：
对于 OSM/LUM，本决议从现在开始执行。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): IEC 60598-2-12/2006	**Subclause(s):** 12.3.1	**No.** DSH 0705	**Year** 2008
Category: LITE		**Developed by:** ETF5 OSM/LUM	
Subject: Definition of nightlights	**Key words:** - Nightlights - Protective cover - IEC 60598-2-12	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

Which standard should be applied for the luminaire shown below ? Note: The protective cover is removable by hand. (Left picture = complete luminaire, right picture = protective cover removed).

Decision:

IEC 60598-2-12 is the correct standard.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60598-2-12/2006</td><td rowspan="3">条款号：12.3.1</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0705</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
夜灯的定义</td><td>关键词：
— 夜灯
— 防护盖
— IEC 60598-2-12</td><td colspan="2">2009 年 CTL 第 46 届全体会议批准</td></tr>
</table>

问题：

哪一个标准适用于本灯具？

注：防护盖可徒手拆卸（左图＝完整的灯具，右图＝摘除防护盖）。

决议：

IEC 60598-2-12 标准是适用的。

说明：

对于 OSM/LUM，本决议从现在开始执行。

CTL DECISION SHEET

Standard(s): IEC 60598-2-13/2006 EN 60598-2-13/2006	**Subclause(s): 13.5 13.13**	**No.** **DSH 0706**	**Year** **2008**
Category: LITE		**Developed by: ETF5 OSM/LUM**	
Subject: Marking on ground recessed luminaires	**Key words:** **- Ground recessed** **- Marking** **- IP rating**	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

In clause 13.13 the following is stated: "Luminaires shall meet at least both IP 65 and IP 67 requirements." The luminaire is than tested accordingly, but how shall it be marked:
- With both IP numbers?
- With the highest IP number?
- With the lowest IP number?

Decision:

Both IP numbers.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：IEC 60598-2-13/2006
EN 60598-2-13/2006</td><td rowspan="3">条款号：13.5
13.13</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0706</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
埋地灯的标志</td><td>关键词：
— 埋地
— 标志
— IP 等级</td><td colspan="2">2009 年 CTL 第 46 届全体会议批准</td></tr>
</table>

问题：

第 13.13 条款中指出："灯具应至少满足 IP65 和 IP67 的要求。"

于是灯具进行了相关测试，但如何标记：

— 标注这两个 IP 等级？

— 标注最高的 IP 等级？

— 标注最低的 IP 等级？

决议：

标注这两个 IP 等级。

说明：

对于 OSM/LUM，本决议从现在开始执行。

CTL DECISION SHEET

<table>
<tr><td rowspan="2">Standard(s): IEC 60400/1999
A1/2002
A2/2004
EN 60400/2000
A1/2002
A2/2004</td><td rowspan="3">Subclause(s): 17.5</td><td>No.</td><td>Year</td></tr>
<tr><td>DSH
0707</td><td>2008</td></tr>
<tr><td>Category: LITE</td><td colspan="2">Developed by: ETF5
OSM/LUM</td></tr>
<tr><td>Subject: Fire resistance of material retaining live parts in position</td><td>Key words:
- Integrated lampholders
- Fire resistance
- PCBs</td><td colspan="2">Decision approved at the 46th CTL Plenary Meeting, in 2009</td></tr>
</table>

Question:

Consider a gear box of a downlight with integrated GX 24 lampholders, where the lampholder housing and lamp retention are at the front part of the gear box and the lampholder contacts are fitted to the PCB of the electronic ballast.
How do we apply the needle flame test in this case:
- on the PCB only?
- on the complete lampholder, i.e. on the lampholder housing?

Decision:

The needle flame is applied to the parts which retain current carrying parts in position. The surrounding parts must be kept in place during the tests.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：IEC 60400/1999
A1/2002
A2/2004
EN 60400/2000
A1/2002
A2/2004</td><td rowspan="3">条款号：17.5</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0707</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
固定带电零部件就位的绝缘材料的防火</td><td>关键词：
— 整体式灯座
— 防火
— PCB</td><td colspan="2">2009 年 CTL 第 46 届全体会议批准</td></tr>
<tr><td colspan="4">问题：
带有整体式 GX24 灯座的筒灯的控制盒，灯座本体和光源固定零部件在控制盒前端，然后灯座的触点安装在电子镇流器的印制电路板（PCB）上。
在这种情况下，我们如何进行针焰测试：
— 仅在 PCB 上？
— 在完整的灯座上，即对灯座本体？

决议：
对固定带电零部件就位的材料进行针焰试验。周围的零部件在整个测试的过程中应保持在原位。

说明：
对于 OSM/LUM，本决议从现在开始执行。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): IEC 60598-2-12/2006	Subclause(s): 12.6.5	No.	Year
		DSH 0708	2008
Category: LITE		Developed by: ETF5 OSM/LUM	
Subject: Plug in nightlight – changing the lamp	Key words: - Tools - Fixing screw - Access while in the socket	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

Consider the case where a plug-in nightlight has a fixing screw to prevent access when changing the lamp without tools.Normally this screw is positioned at the rear of the product so that access is prevented when the plug-in nightlight is connected to a fixed socket.
Does this requirement also apply to portable sockets?

Decision:

No.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60598-2-12/2006</td><td rowspan="3">条款号：12.6.5</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0708</td><td>2008</td></tr>
<tr><td>类别：照明设备</td><td colspan="2">编写：ETF5 OSM/LUM</td></tr>
<tr><td>主题：
插入式夜灯-换灯</td><td>关键词：
— 工具
— 紧固螺钉
— 插入插座时触及性</td><td colspan="2">2009 年 CTL 第 46 届全体会议批准</td></tr>
</table>

问题：

插入式夜灯插头上有一个紧固螺钉，在不使用工具更换灯时，用来防止意外接触。通常这个螺钉固定在产品的背面，以防止该产品连接到一个固定插座时意外接触。

请问这一要求是否也适用于任何类型的便携式插座？

决议：

不适用。

说明：

对于 OSM/LUM，本决议从现在开始执行。

7. OFF 信息技术及办公设备

CTL DECISION SHEET

Standard(s): **IEC 60950–1:2001** **IEC 60950–1:2005**	**Sub clause(s):** **5.3.2,Annex B**	**DSH** **631A**
Subject: **Testing of abnormal conditions of dc motors in secondary circuits.**	**Key words:** **DC fan,overload,Annex B**	**Approved by the 45th CTL Plenary Meeting 2008**

Question:

1. Is the test as described in Annex B.6 required for small dc motors (e.g. fans used in notebooks or power supplies)?
2. Is it permitted to skip the limit temperatures of Tables B.1 and B.2 for dc motors in SELV circuits (following the second dashed paragraph of NOTE to subclause 5.3.2)?

Decision:

1. Yes, the test is required, except for motors associated with air handling (fans).
   Note -This is in line with the proposed modification of B.1 for Amd.1 to IEC 60950-1.

2. Yes, it is permitted for such dc motors to exceed the limit temperatures of Tables B.1 and B.2 during tests of subclauses B.6 and B.7.

Explanatory Notes:

Question 1.:

The test is only required, if there is a possibility of an overload occurring. The possibility of an overload occurring on a dc secondary fan is minimal.

Annex B.1 already exempts the running overload tests (per B.4) on "motors that are used for air-handling only and where the air propelling component is coupled to the motor shaft."

Annex B.4 generally applies to primary fans, but similar considerations can be applied to B.6 for dc secondary fans too.

This is in line with the proposal for the Hazard Based Standard IEC 62368.

Question 2.:

Sub-clause 5.3.2 of IEC 60950-1:2001/2005 makes reference in the normative text to Annex B for the compliance verification.

Sub-clause 5.3.2 of IEC 60950-1:2001/2005 allows in the second dashed paragraph of the NOTE (which is only informative, see in the Foreword to IEC 60950-1:2005) that motors used in secondary circuits may exceed the temperature limits if this does not create a hazard.

This information is contradicting – and the normative text has generally preference over the informative text NOTE. However, as the NOTE is providing examples on how to achieve compliance with requirements of subclause 5.3.2, it is considered that:

- Tests of Annex B are still required, but limit temperatures (Table B.2) can be exceeded.
- The test of B.6.3 must be performed to see that the motor does not create a hazard.

CTL 决议

标准： IEC 60950-1：2001 IEC 60950-1：2005	条款号： 5.3.2，附录 B	决议单号： DSH 631A
主题： 二次电路中直流电动机在异常条件下的试验	关键词： 直流风扇，过载，附录 B	2008 年 CTL 第 45 届全体会议批准

问题：

1. 对于小的直流电动机是否要按附录 B.6 的要求进行试验（例如在笔记本或供电装置中使用的风扇）？

2. 对于在 SELV 电路中的直流电动机是否允许超过表 B1 和表 B2 的温度限值（按照条款 5.3.2 注释中第二个破折号后的段落描述）。

决议：

1. 是的，必须进行试验。与通风有关的电动机（风扇）除外。

注-这与 IEC60950-1 增补件 1 中附录 B.1 的修改建议一致。

2. 是的，在条款 B.6 和 B.7 试验中，允许这样的直流电动机的温度超过表 B.1 和表 B.2 的温度限值。

说明：

问题 1：

仅当过载有可能发生时，这个试验才是必需的。一个二次电路中的直流风扇发生过载的可能性是很小的。

对于“仅作为通风用，且风扇机件直接连在电动机转轴上的电动机”，附录 B1 已经免除了其运行过载试验（依照 B4）。

附录 B4 通常适用于初级风扇，而类似考虑可以适用于 B.6 的二次电路中的直流风扇。

这是与基于危险的标准 IEC62368 的建议一致的。

问题 2：

IEC60950-1：2001/2005 条款 5.3.2 参照附录 B 的规范性文件进行符合性核查。

根据 IEC60950-1：2001/2005 条款 5.3.2 的注释中第二个破折号后的段落（此内容仅是资料性的，见 IEC60950-1：2005 前言），只要发热不会引起危险，允许在二次电路中使用的电动机超过温度限值。

这些信息是矛盾的 - 并且规范性正文通常比资料性注释要优先。然而，因为注释提供了如何满足条款 5.3.2 要求的例子，所以认为：

— 附录 B 的试验还是必需的，但（表 B.2）温度限值可以超过。

— B6.3 的试验必须进行，以此来认定电动机不会引起危险。

CTL DECISION SHEET

Standard(s): IEC 60950-1 ed.1 (2001) IEC 60950-1 ed.2 (2005)	**Sub clause(s):** 1.2.4.2, 1.2.6.4, 1.2.8.6, 2.4	DSH 633A
Subject: Classification and test of digital cameras with built in flashes	**Key words:** - digital cameras - flash circuits - hazardous voltages	Approved by the 45th CTL Plenary meeting 2008

Question

1. Is an electrical enclosure per clause 1.2.6.4 required for Digital Cameras that contain a (Xenon tube) flash, if the flash energy storage capacitor is charged to a hazardous voltage?
2. What protection class against electric shock should be defined?
3. Is an electric strength test between parts/circuits at hazardous voltage and SELV circuits/conductive enclosure required? All these parts are commonly connected at one point without insulation (secondary ground).

Decision

1. Yes, an electrical enclosure is required.
2. A classification according to 1.2.4 is not necessary, but the construction has to provide double or reinforced insulation between hazardous live parts and accessible parts. Marking to Class II is not required.
3. An electric strength test is required in accordance with IEC 60950-1 2nd Edition, Table 5C.

Explanatory Notes:

If the equipment contains parts and circuits at hazardous voltage, which do not meet the requirements of LCC or SELV, protection must be provided in form of an electrical enclosure with suitable mechanical strength.

MT1 Barcelona:
Similar requirements would be applicable to IEC 60065 7ed, except that SELV is not a term in that standard.

MT2 Barcelona: Although the decision taken may apply to a certain construction, there are many examples of other constructions to which other decisions must be taken. For the specific construction noted, the decision is correct. However, the decisions of the PDSH cannot be considered to cover all likely constructions for equipment covered under IEC 60950-1.
Additional information will be provided by the TC 108 Secretary to help clarify out position.

CTL 决议

标准： IEC 60950-1 ed. 1（2001） IEC 60950-1 ed. 2（2005）	条款号： 1.2.4.2，1.2.6.4， 1.2.8.6，2.4	决议单号： DSH 633A
主题： 带内置闪光灯的数码相机的分类和测试	关键词： — 数码相机 — 闪光灯电路 — 危险电压	2008 年第 45 届 CTL 全体会议批准

问题：

1. 如果闪光灯储能电容充电可达到危险电压，含闪光灯（氙气灯）的数码相机是否必须有满足条款 1.2.6.4 要求的电气防护外壳？

2. 按防电击保护类别定义，应该定为哪一类？

3. 危险带电零部件/电路和 SELV 电路/导电外壳之间是否需要进行抗电强度试验？所有这些零部件（SELV 电路/导电外壳）通常被连接在一个非绝缘的点上（次级地）。

决议：

1. 是的，电气防护外壳是必须的。

2. 不需要按条款 1.2.4 进行分类，但是结构必须保证危险带电零部件和可触及零部件间满足双重绝缘或加强绝缘的要求。不需要标记Ⅱ类设备符号。

3. 必须按 IEC 60950-1 第二版，表格 5C 进行抗电强度试验。

说明：

如果设备带不符合 LCC（限流电路）或 SELV（安全特低电压）电路要求的危险电压零部件/电路，设备必须提供满足机械强度要求的电气防护外壳进行防护。

MT1 Barcelona（巴塞罗那）：

除非 IEC60065 第七版标准中没有 SELV 电路的条款，类似要求也适用于 IEC 60065 第七版 MT2 Barcelona（巴塞罗那）：虽然本决议可以适用于特定结构中，但也有很多其他结构必须采用其他决议。对于上述提及的特定结构，该决议是正确的。但是，不能认为该决议可以覆盖 IEC 60950-1 下涉及产品的所有类似结构。

TC108 秘书处会提供额外信息来帮助阐明观点。

CTL DECISION SHEET

Standard(s): IEC 60950-1 ed.1(2001) IEC 60950-1 ed.,2(2005)	Sub clause(s): 1.7.1	DSH 634A
Subject: **Place the nameplate in battery compartment?**	**Key words:** **battery compartment name plate**	**Approved by the 45th CTL Plenary meeting 2008**

Question:

The nameplate of a notebook computer is located in the battery compartment. Only when the users remove the battery, can the nameplate be seen. Is this acceptable?

Decision:

The marking is allowed to be in any operator access area. (See proposed clarification in document 108/264A/DC):

These markings shall be readily visible in any OPERATOR ACCESS AREA , except that they shall not be located on the bottom of equipment having a mass exceeding 18 kg.

1. For a notebook, if the battery compartment is operator accessible. the nameplate can be placed in the battery compartment.

Explanatory Notes:

If the battery compartment is operator accessible, the user can easily see the nameplate after he removes the battery pack. The notebook may have the battery already installed or packed separately. If the battery is not installed, the user can see the markings easily. Even when the battery is installed, it can easily be removed by the user. Then it can be regarded as "an operator accessible door or cover", when it is opened and the nameplate is directly visible.

CTL 决议

<table>
<tr><td>标准：
IEC 60950-1 ed. 1（2001）
IEC 60950-1 ed. 2（2005）</td><td>条款号：
1. 7. 1</td><td>决议单号：
DSH 634A</td></tr>
<tr><td>主题：
铭牌是否可贴在电池仓内？</td><td>关键词：
电池仓
铭牌</td><td>2008 年 CTL 第 45 届全体会议批准</td></tr>
<tr><td colspan="3">问题：
笔记本电脑的铭牌位于电池仓内，且只有当使用者移开笔记本电脑电池时，铭牌才可以被使用者看见，这种情况是否可以接受？

决议：
铭牌标记允许贴在操作人员可接触的任何区域（见文件 108/264A/DC 提供的说明）。
这些铭牌标记应位于操作人员可接触的任何区域内易于看见的位置。但对于质量超过 18kg 的设备，铭牌不能标记在设备底部。
对于笔记本电脑，如果其电池仓内是操作者可触及的，铭牌可以贴于电池仓内。
说明：
如果电池仓是操作人员可触及的，当使用者移去电池（包）后可以看到该铭牌。笔记本电脑的电池可以是已经安装好或分开包装的。如果电池未安装，使用者可以很容易地看到该标记。即使电池已经被安装在笔记本电脑上，但由于该电池可以很容易地被卸下，使用者就可以很容易地看到该铭牌标记。因此笔记本电脑的电池可以被认为是：“操作者可触及的门或盖”，当它被卸下时，铭牌就可以直接被使用者看到。</td></tr>
</table>

CTL DECISION SHEET

Standard- IEC 60950-1:2005	Subclause: 4.3.5	No.	Year
		DSH 0700	2008
Category: OFF		Developed by: ETF 2	
Subject: Push force for connectors	Key words: -Travel adapter; - connector misconnection	Decision approved at the 46th CTL Plenary Meeting in 2009	

Question:

A travel adapter consists of two separable parts:

- AC/DC unit (down transformation of voltage, safety separation provided)
- DC/DC unit with output cable (supply stabilization and voltage adjustment, no safety separation provided)

The unit can be used at AC mains (both units connected together) or DC (units separated, only DC/DC used). The AC/DC unit has a (Class II) IEC 60320-1 type appliance inlet; the DC/DC unit uses a special 2-pins input connector.

With a small force applied (less than 30 N) an IEC 60320-1 coupler can be inserted into the input connector of the DC/DC unit and make contact.

a. Is such design acceptable if a warning label is provided on the DC/DC unit and additional remarks are provided in the user manual that state that the connector of the AC power cord shall not be pushed into the input connector of the DC/DC unit?
b. How much force must be applied during the testing of the input connector (DC) and appliance coupler (AC)?

Decision:

A test force of 60 N (as specified in IEC 60320-1, no safety factor considered) shall be applied when testing possible misconnection of IEC 60320 and similar connectors.

Explanatory Notes:

- Subclause 4.3.5 of IEC 60950-1 is lacking of specific criteria (“compliance is checked by inspection”)..
- IEC 60320-1 defines maximum force of 60 N for the NOT-GO test.

CTL 决议

标准： IEC 60950-1：2005	条款号： 4.3.5	决议单号	年份
		DSH 0700	2008
类别：OFF		制定者：ETF2	
主题： 连接器的推力	关键词： — 旅行用适配器 — 连接器误插	2009 年第 46 届 CTL 全体会议批准	

问题：

旅行用适配器由两个可分离的部分组成：

AC/DC 单元（电压降压变换，提供安全隔离）；

DC/DC 单元，带输出电缆（电源稳定和电压调节，不提供安全隔离）。

该装置可以在交流电网电源上使用（两个单元连接在一起），也可以在直流电网电源上使用（两个单元分离，仅使用 DC/DC 单元）。AC/DC 单元具有一种（Ⅱ类）IEC 60320-1 类型的器具输入插座；DC/DC 单元使用一种特殊的 2 针输入连接器。

在施加一个小于 30N 的力的情况下，IEC 60320-1 的耦合器就能插入 DC/DC 单元的输入连接器并形成接触。

a. 如果在 DC/DC 单元上提供一个警告标签，并在用户手册中提供附加说明，说明不得将 AC 电源线的连接器推入 DC/DC 单元的输入连接器，那么上述设计是否可以接受？

b. 在进行输入连接器（DC）和器具耦合器（AC）的试验时，必须施加多大的力？

决议：

对 IEC 60320-1 的连接器和类似连接器试验可能的误插时，应施加 60N 的试验力（按照 IEC 60320 的规定，不考虑安全因素）。

说明：

IEC 60950-1 的 4.3.5 条缺少明确的要求（仅“通过检查来检验其是否合格”）。

IEC 60320-1 对阻止插入试验规定最大的力为 60N。

8. SAFE 安全变压器及类似设备

CTL DECISION SHEET

Standard(s): IEC 61558-1/2005	Subclause(s): 15.2	No.	Year
		DSH 0709	2008
Category: SAFE		Developed by: ETF5 OSM/LUM	
Subject: Short circuit and overload protection	Key words: - Transformers - Steady state conditions - Short circuit	Decision approved at the 46th CTL Plenary Meeting, in 2009	

Question:

Inherently short-circuit proof transformers shall be tested by short-circuiting the output windings until steady-state conditions are reached.
In IEC 61558-1 "steady-state condition" is not explained. Referring to other standards the meaning of "steady-state conditions" or "thermal stability" is that the change of temperature is less than 1°C per hour. So following questions arise:

1) Is it correct to record the temperatures after one hour when temperatures did not change (more than 1°C/h)?
2) How shall an inherently short-circuit proof transformer be assessed when the above mentioned requirements are fulfilled, but it is damaged 6h after reaching the steady state condition in a way where safety will be impaired (the transformer bursts).

Decision:

1) Yes.
2) The transformer should not be accepted.

Explanatory Notes: For OSM/LUM this decision is applicable from now on.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 61558-1/2005</td><td rowspan="4">条款号：15.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0709</td><td>2008</td></tr>
<tr><td rowspan="2">类别：安全变压器及类似设备</td><td colspan="2">制定者：
ETF5 OSM/LUM</td></tr>
<tr></tr>
<tr><td>主题：
短路和过载保护</td><td>关键词：
— 变压器
— 稳定状态
— 短路</td><td colspan="2">2009 年第 46 届 CTL 全体会议批准</td></tr>
</table>

问题：

固有耐短路变压器应进行输出绕组短路试验直至稳定状态。

在 IEC 61558-1 中，没有对“稳定状态”进行解释。参考其他标准中“稳定状态”或“热稳定”的含义是指每小时温度变化量小于 1℃。由此提出以下问题：

1. 当一小时以后温度不再变化（变化量小于每小时 1℃）时，记录温度是否正确。

2. 某个固有耐短路变压器虽满足以上要求，但却在达到稳定状态 6 小时后损坏。这种损坏会危害其安全性（变压器爆裂）。请问该如何评定。

决议：

1. 是的。

2. 该变压器不能被接受。

说明：对于 OSM/LUM，该决议当即生效。

9. TRON 电子娱乐设备

CTL DECISION SHEET

Standard(s): IEC 60065 Ed 7 (2001) + Am 1 (2005)	Sub clause(s): 2.6.3, 13 & 4.3.1	DSH: 620
Subject: Short circuit of clearances and creepages in basic insulation when they are below the values of the corresponding tables.	**Key words:** Clearances & Creepage distances Basic insulation Short circuit of distances	**Approved by the 45th CTL Plenary meeting 2008**

Question & Rationale:

The definition of basic insulation in clause 2.6.3 quotes "insulation applied to HAZARDOUS LIVE parts to provide basic protection against electric shock". There is a note under this definition that is not totally clear, in which it is said that this kind of insulation does not "necessarily" include functional insulation. This can lead to confusion. We had a case in which a customer disagreed with us about short-circuiting some important clearances that were less than the values stated in the tables because he claimed the clearances were FUNCTIONAL only. However, it is our practice to short-circuit all the key distances – both in primary and secondary circuits – which are below the values of the corresponding tables, where these faults can lead to dangerous situations, such as overheating.
1) Is the procedure we are using adequate?
2) How should the word "necessarily" of the note be interpreted?
3) Can we consider these kinds of distances as basic insulation although they are not directly involved with electric shock?

Decision:

1) Caution must be exercised when applying fault conditions across insulation in the MAINS. Specifically, according to Sub-clauses 4.3.1 and 13.1, faults across required insulations (BASIC, SUPPLEMENTARY, REINFORCED) between parts of different polarity DIRECTLY CONNECTED TO THE MAINS are not permitted. Fault conditions according to the last paragraph of Sub-clause 13.1 may be applied to clearance and creepage distances as follows: (1) in applications other than between parts of different polarity DIRECTLY CONNECTED TO THE MAINS and (2) in applications involving insulation provided for functional purposes which does not meet the values specified in Clause 13 for BASIC INSULATION.

2) Refer to the Explanatory note.

3) No. Clearance and creepage distances that are not regarded as a safeguard against electric shock are not considered as basic insulation.

Explanatory Notes:

Some clarification about this in the standard can be helpful, especially in reference to the term "necessarily" mentioned above.

CTL 决议

标准： IEC 60065 Ed 7（2001）＋ Am1（2005）	条款号： 2.6.3，13 & 4.3.1	决议单号： DSH 620
主题： 当基本绝缘的电气间隙和爬电距离小于相应表中的要求值时，短路该电气间隙和爬电距离	关键词： — 电气间隙和爬电距离 — 基本绝缘 — 短路距离	2008 年第 45 届 CLT 全体会议批准

问题：

2.6.3 条对基本绝缘提出的定义是："为防电击提供基本保护而对危险带电件所加的绝缘。"在这个定义下面有一个注，意思不十分明确，注中解释说，这种绝缘不"必要地"包括功能绝缘。这种解释会导致混淆。我们曾有一个案例，客户不同意我们把小于表中规定值的某些重要的电气间隙短路，因为他提出，这些电气间隙仅是功能绝缘。但是，我们的常规做法是，如果这些关键的电气间隙距离的短路故障会导致危险情况发生，例如过热，我们就会把小于相应表中规定值的——在一次电路和二次电路中的——所有关键的电气间隙距离短路。

1）我们现在采用的这种做法是否恰当？

2）注中"必要地"一词应作何解释？

3）尽管这类电气间隙距离并不直接涉及电击，但我们能否把这类电气间隙距离看作是基本绝缘？

决议：

1）在电网电源端的绝缘上施加故障条件时一定要谨慎。特别是按 4.3.1 和 13.1 条的规定，在直接与电网电源连接的不同极性的零部件之间所要求的绝缘（基本绝缘、附加绝缘、加强绝缘）上是不允许施加故障条件的。13.1 条最后一段规定的故障条件可以施加在下述部位的电气间隙和爬电距离上：（1）除直接与电网电源连接的不同极性的零部件之间的应用部位；（2）涉及的绝缘用作功能目的，而且不满足 13 章基本绝缘规定值的应用部位。

2）见说明。

3）不能。不能把不作为防电击保护的电气间隙和爬电距离看作是基本绝缘。

说明：

关于这个问题，尤其是关于上述提到的"必要地"一词，如果标准中做出澄清说明是会有所帮助的。

CTL DECISION SHEET

Standard(s): **IEC 60065 Ed 7 (2001) + Am 1 (2005)**	**Sub clause(s):** **7.2**	**DSH:** **621**
Subject: **Softening temperature (Vicat) test to components**	**Key words:** **- Current carrying parts** **- Softening temperature** **- Heat resistance**	**Approved by the 45th CTL Plenary meeting 2008**

Question & Rationale:

Clause 7.2 states that the parts to be subjected to the test of ISO 306 are the ones that can generate substantial heat due to imperfect contact. We are applying this test to connectors in printed circuit boards if they carry currents > 0.2A and are conductively connected to the mains. There is a note with some examples of parts considered capable of generating substantial heat, all of them seem to be related with “setting” or manual action from the user or service personnel. Connectors are not included in this list. A doubt arises about this matter, because connectors in printed circuit boards are in general well attached and faulty contacts are not common. Shall this test be applied to connectors and similar parts?

Decision:

In addition to consideration of the MAINS location of the part and the current carried by the part, whether the test shall be applied in this case depends upon the mechanical construction of the connector, connector insulating material ratings, and existing (if any) Certification(s) of the connector. If softening of the connector insulating material may lead to mechanical deformation of the connector and this mechanical deformation may result in a change in the impedance at the interface of the current carrying parts that can lead to substantial heat, the requirement for minimum softening temperature is applicable.

Explanatory Notes:

The requirement for minimum softening temperature of 150 degrees C is applicable to all insulating material supporting current carrying parts operating at a current level in excess of 0,2 A which are CONDUCTIVELY CONNECTED TO THE MAINS unless (1) the current carrying parts have additional mechanical support -- independent of the insulating material, or (2) review of the material data sheet demonstrates an ISO 306 Vicat Softening Temperature rating in excess of 150 degrees C, or (3) the part(s) have been previously evaluated in accordance with the relevant IEC Standard.

CTL 决议

标准： IEC 60065 Ed 7（2001）＋ Am 1（2005）	条款号： 7.2	决议单号： DSH 621
主题： 零部件的软化温度（维卡）试验	关键词： — 载流零部件 — 软化温度 — 耐热	2008 年第 45 届 CTL 全体会议批准

问题：

7.2 条规定，要承受 ISO306 的试验的零部件是因接触不良而会产生显著热量的零部件。如果印制电路板上的连接器承载电流大于 0.2A，并且与电网电源导电连接，我们就对这些连接器进行这项试验。7.2 条有一个注给出了被认为能产生显著热量的某些零部件的例子，所有这些例子看起来都与使用者或维修人员的“设定”或手动操作有关。连接器并没有包括在这个注所列出的例子中。由此而产生的疑问是，由于印制电路板上的连接器通常固定良好，并且很少发生接触故障，那么这项试验对连接器和类似的零部件是否适用？

决议：

这项试验在这个案例中是否适用，除了要考虑该零部件所处的电网电源的位置和该零部件所承载的电流外，还要取决于连接器的机械结构，连接器绝缘材料的额定值和连接器的现有的（如果有）认证。如果连接器绝缘材料软化可能导致连接器的机械变形，而且这种机械变形可能引起载流零部件接触面的阻抗发生改变，以致引起显著发热，最低软化温度的要求就适用。

说明：

对支撑工作在电流等级超过 0.2A、与电网电源导电连接的载流零部件的所有绝缘材料，最低软化温度为 150℃的要求均适用，除非：（1）载流零部件有附加机械支撑——不依靠绝缘材料；（2）对材料数据单的审核表明，ISO 306 的维卡软化温度额定值超过 150℃；（3）该零部件以前已按相关 IEC 标准经过评定。

CTL DECISION SHEET

Standard(s): IEC 60065 :2001	**Sub clause(s):** 2.8.4, 8.2 & 14.5.2.4	**DSH- 632**
Subject: **Access to live parts on fuse-holder**	**Key words:** **BY HAND** **Live parts** **Fuse-holder**	**Approved by the 45th CTL Plenary Meeting 2008**

Background:

The combined appliance inlet / fuse-holder / voltage selector illustrated on page 2 has certification to IEC 60320 and is being used in audio equipment in the scope of IEC 60065. As can be seen from the photographs, the fuse carrier cannot be removed before first pulling out the appliance coupler. However, when the fuse carrier is removed there is direct access to the live fuse clip using the standard finger.

Question:

Question 1- Should the tests for access to live parts be conducted assuming that the appliance coupler could subsequently be re-inserted?

(c/f “Inadvertent reactivation” of safety interlock – clause 14.7)

Question 2- If the answer to question 1 is “yes”, how do we determine whether or not the fuse carrier can be removed BY HAND?

Decision:

The answer to Question 1 is “yes”.
The answer to Question 2:

Use the following tests as appropriate:
a) 20N for 10s as per clause 9.1.7 b) using the test hook,
b) 50N for 10s as per clause 8.14,

Explanatory Notes:

1. The Operational Staff Meeting for installation material had a similar discussion: Here is an extract from the OSM/IN(ES/AENOR) 1/03 meeting minutes:

6.4 Protection against electric shock of Category PC2 fus holder integrated in appliance inlet

EN 60127-6:1994 + A1:1996, subclause 9.2
There are certain constructions of the combination of an appliance inlet and a fuse-holder where the fuse-carrier can be removed by hand after the connector has been removed. It is possible to insert the connector again into the appliance inlet without the fuse-carrier in its place. After that the live part of the fuse-holder can be touched with the test finger.
The meeting agreed on not accepting such construction and to consult the relevant committees: CLC/TC23C and CLC/Rs to IEC/SC23G.

Attention is also drawn to the fact that there is a test using the test-finger-nail in IEC 60335-1 Sub-clause 22.11 to determine removal by hand.

CTL 决议

标准： IEC 60065：2001	条款号： 2.8.4，8.2 和 14.5.2.4	决议单号： DSH 632
主题： 熔断器座的带电件的可触及性	关键词： 手动 带电件 熔断器座	2008 年第 45 届 CTL 全体会议批准

问题：

第 2 页所示的器具输入插座/熔断器座/电压选择开关的组合件已通过了 IEC 60320 的认证，并用在 IEC 60065 范围内的音频设备上。从照片上可以看出，在把器具耦合器拉出来之前是不可能取下熔断器承载体的。但是，当取下熔断器承载体时，用标准试验指就可直接接触到带电的熔断器夹子。

问题 1：假定随后就能重新插入器具耦合器，是否还应进行带电件的可触及性测试？

（安全联锁装置的“意外再动作”——14.7 条）

问题 2：如果对问题 1 的答复是“是的”，那么我们究竟怎么来确定熔断器承载体是能手动取下还是不能手动取下？

决议：

对第 1 个问题的答复是“是的”。

对第 2 个问题的答复：

按适用的情况采用下面的测试：

a）按 9.1.7b）的规定，用测试钩施加 20N 的力，持续 10s；

b）按 8.14 的规定，施加 50N 的力，持续 10s。

说明：

安装材料工作组会议（OSM）曾有过类似的讨论：

这里是 OSM/IN（ES/AENOR）1/03 会议纪要的摘录：

6.4　与器具输入插座一体的 PC2 类熔断器座的防电击保护

EN 60127-6：1994＋A1：1996，9.2 条

具有某些结构的器具输入插座和熔断器座的组合件，在取下连接器后就可以手动取下熔断器承载体。当熔断器承载体不在其位的情况下有可能将连接器再次插入器具输入插座。此后，用试验指就可以触及到熔断器座的带电件。

会议一致同意不接受这种结构，并要和 IEC/SC23G 的 CLC/TC23C 和 CLC/Rs 进行协商。

值得注意的是，在 IEC 60335-1 的 22.11 条中有一个用试验指的试验，用来确定是否能手动取下。

CTL DECISION SHEET

Standard(s)- (incl. year) IEC 60065:2001	Sub-clause(s): 7.1.1, Table 3, note b	No.	Year
		DSH 0729	2008
Category: TRON		Developed by: ETF2	
Subject: Temperature limit of main enclosure over heat sink	Key words: - Limits during normal operation - Not likely to be touched during intended use	Decision approved at the 46th 2009 CTL Plenary Meeting	

Question:

Can the 65 ° K temperature rise limit be applied for the surface of the main enclosure covering an internal heat sink in the same way as is applied for vacuum tubes following DSH-566?

Decision:

The 65 ° K rise limit may be applied to the enclosure covering an internal heatsink, if:

- the symbol (IEC60417, 5041) is marked on or adjacent to the heated area of the surface of the enclosure, and
- the minimum distance over the surface of the product between this area and any control intended to be operated during use is 150 mm or greater, and
- the instruction manual gives information regarding it.

Explanatory Notes:

For high-grade products, external heat sink or cooling fan is often used, but for low cost products, most heat sinks are placed inside the main enclosure. It is difficult to improve in the view of the cost of doing so. It seems impossible that the product with such construction can meet the limit of 40K for moderate/ 30K for tropical conditions.

Most users realize that the top cover of an audio amplifier is heated up.Even if a child intends to touch the heated area exceeding 70°C, the area radiates hot air, so the child can easily realize it is hot.

The issue was discussed in MT1 of TC108 and the committee agreed with the above decision. The addition of the marking and the wording was proposed by Mr. Woodgate. See the minutes of Berlin meeting, TC108/MT1(Convenor)56a, and of the Barcelona meeting, TC108/MT1(Convenor)60.

The last part of the second bullet paragraph was changed from "greater than 150mm" to "150mm or greater".

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60065：2001</td><td rowspan="3">条款号：
7.1.1，表 3，注 b</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0729</td><td>2008</td></tr>
<tr><td>类别：TRON</td><td colspan="2">制定者：ETF2</td></tr>
<tr><td>主题：
覆盖散热片的主体外壳的温度限值</td><td>关键词：
— 正常工作期间的限值
— 预定使用时不可能接触</td><td colspan="2">2009 年第 46 届 CTL 全体会议批准</td></tr>
<tr><td colspan="4">问题：
按照 DSH-566 决议，65K 的温升限值适用于真空管，是否能同样适用于覆盖内部散热片的主体外壳表面？

决议：
如果满足下列要求，65K 的温升限值就可以适用于覆盖在内部散热片上的外壳：
• 在外壳表面发热区域处或附近按照 IEC 60417，5041 贴标识符号。
• 在该区域与使用时要动作的任何控制器（件）之间沿产品表面的最短距离大于或等于 150mm；
• 操作手册中给出相关的信息。
说明：
对于高档的产品，往往使用外部散热片或冷却风扇，但对于低成本的产品，大部分散热片放置在主体外壳的内部。要想加以改进，考虑到这样做的成本是很难实现的。看来这种结构的产品不可能满足 40K（对温带）/30K（对热带）的温升限值。
大多数使用者都知道音频放大器的顶部外壳是发热的。即使是儿童试图去接触温度超过 70℃的该发热区域，由于该区域辐射热空气，所以儿童很容易就能意识到这里是热的。
TC 108 的 MT1 讨论过该问题，并且委员会同意上述决议。Mr. Woodgate 起草了附加标识和语句。见柏林会议纪要，TC 108/MT1（Convenor）56a 和巴塞罗那会议纪要，TC 108/MT1（Convenor）60。
第 2 个黑点段的最后部分，将“大于 150mm”改为“等于或大于 150mm”。</td></tr>
</table>

10. POW 低压电器设备

CTL DECISION

Standard:	Sub clause(s):	DSH:
IEC 60947–2,3rd edition,2003	Table 10	644
Subject:	**Key words:**	**Approved by the 45th CTL Plenary meeting 2008**
Simplified test procedure between different poles devices:1P+N and 2P devices	**Tests on 1P+N and 2P devices**	

Question:

Considering a case where, within a series of circuit breakers, the two pole version and the 1P+N version have identical construction (neutral pole is a fully protected pole and is identical to a phase pole) and the two pole version and the 1pole+N version have the same voltage rating:

Is it acceptable that the tests performed on the two pole version cover the 1P+N version?

Rationale:

- ❑ According to item 2.3.1 of IEC 60947-1 (2004-03), there is no difference between one pole plus neutral and two pole devices, provided that the neutral pole is technically identical to the phase poles.

  2.3.1 pole of a switching device:
  portion of a switching device associated exclusively with one electrically separated conducting path of its main circuit and excluding those portions which provide a means for mounting and operating all poles together [441-15-01]

  NOTEA: switching device is called single–pole if it has only one pole. If it has more than one pole, it may be called multi–pole (two–pole, three–pole, etc.) provided the poles are or can be coupled in such a manner as to operate together.

- ❑ In addition there are some specific requirements, related to markings as describe in item 7.1.8, which are fully satisfied by construction.

  7.1.8 Additional requirements for equipment provided with a neutral pole:

  - ***When an equipment is provided with a pole intended only for connecting the neutral, this pole shall be clearly identified to that effect by the letter N (see 7.1.7.4).***
  - *A switched neutral pole shall break not before and shall make not after the other poles.*
  - ***If a pole having an appropriate short-circuit breaking and making capacity (see 2.5.14 and 2.5.15) is used as a neutral pole, then all poles, including the neutral pole, may operate substantially together.***

  NOTE: The neutral pole may be fitted with an over–current release.
  For equipment having a value of conventional thermal current (free air or enclosed, see 4.3.2.1 and 4.3.2.2) not exceeding 63 A, this value shall be identical for all poles.

- ❑ Concerning the test conditions, the test circuit used for 2 pole circuit breakers (2P or 1P+N) is given in figure 4 of the standard (see page 3).

  Based on note 2, the only difference between 2P and 1P+N is the way of connecting the safety area.

  For 1P+N, it shall be connected to phase and for 2P it shall be connected to Neutral.

  For breaking aspect, it was decided to perform the tests on 2 poles CB for voltages up to 440V covering the case of 1P+N at 240V.

  For the clearance to safety area aspect, the voltage between one phase and safety area is maximum in case of 1P +N and equal to 240V maximum. Nevertheless this case is covered by the three phase test performed at 440V, considering that in such case the voltage between safety area and the first pole to clear can reach (1,5x 440V) / (1,732) = 380 V (which is much greater than the 240V of the 1P+N).

Therefore, we can consider that the tests performed on 2P devices, cover 1P+N devices.

Decision:

Yes it is acceptable to cover the 1 P+N version by the tests performed on the two pole version.

CTL 决议

标准： IEC 60947-2 第 3 版，2003	条款号： 表 10	决议单号： DSH 644
主题： 不同极电器之间的简化试验程序：1P＋N 和 2P 电器	关键词： 1P＋N 和 2P 电器的试验	2008 年第 45 次 CTL 全体会议批准

问题：

考虑这样一种情况，在一个断路器系列里，2 极和 1P＋N 的电器具有相同的结构（N 极是一个完全保护的极并且和相极一样）并且这 2 极和 1P＋N 电器额定电压相同：

2 极电器进行试验是否可以覆盖 1P＋N 电器的试验？

基本原因：

☐ 根据 IEC 60947-1（2004-03）2.3.1 条，如果 N 极和相极具有相同的工艺，那么 1P＋N 和 2 极电器没有区别。

2.3.1　开关电器的极

仅与开关电器的主电路的一个电气上分开的导电路径相连的电器部件，它不包括那些用来将所有各极固定在一起和操作各极一起动作的部件。(441-15-01)

注 A：如果开关电器仅有一个极，可称为单极开关。如果有一个以上的极，可称为多极（二极、三极等）开关电器，只要这些极是或能被连在一起操作的。

☐ 另外，有些 7.1.8 条描述的有关标志上的特殊要求，结构上应确保完全满足。

7.1.8　具有中性极电器的附加要求

- 当电器有一个极专门用于中性极时，此极的标志应能清楚的识别，并以字母“N”代表（见 7.1.7.4）。
- 可以通断的中性极不允许比其他极先分断和后接通。
- 如果一个具有相应短路分断和接通能力的极（见 2.5.14 和 2.5.15）被用作中性极，则所有极（包括中性极）要同时动作。

注：中性极可以装备过电流脱扣器。

对约定发热电流（自由空气或封闭发热电流，见 4.3.2.1 和 4.3.2.2）不超过 63A 的电器，其所有极的约定发热电流值应相同。

☐ 关于试验条件，2 极断路器（2P 或 1P＋N）的试验电路在标准图 4 中给出（见第 3 页）基于注 2，2P 或 1P＋N 的唯一区别在于安全区域的连接方法。

对于 1P＋N 应该连接至相线，2P 的应该连接至中性线。

在分断方面，决定当电压至 440V 时对 2P 断路器进行试验，可覆盖 1P＋N 电压在 240V 时的情况。

在安全区域的电气间隙方面，相和安全区域之间的电压在 1P＋N 时为最大，且最大值为 240V。不过考虑到在这种情况下安全区域和首先断开的那极之间的电压可达到（1.5×440V）/（1.732）＝380V（这个电压比 1P＋N 的 240V 高出很多），在 440V 下进行的 3 相试验可覆盖这种情况。

因此，我们认为试验在 2P 电器上进行，可覆盖 1P＋N 电器的试验。

决议：

对 2P 的电器进行试验覆盖 1P＋N 的试验是可行的。

CTL DECISION

Standard- IEC 60947–2(2006–04,4th Ed.)	Sub clause(s): 8.3.3.1.2	Sheet: DSH 659
Subject: **Problem of setting a current applied to ACB of high current rating for instantaneous tripping.**	Key words: **Trip limits & characteristics**	**Approved at the 45th CTL Plenary Meeting in Prague in 2008**

Question:

According to 8.3.3.1.2, when the over-current opening release is a built-in part of the circuit breaker, it shall normally be verified inside the corresponding circuit breaker.

For example, in case an air circuit-breaker (ACB) has a rating of 6300 A with an instantaneous trip release up to 16 I_n, do we have to apply 80640 A (16 I_n x 80 %) and 120960 A (16 I_n x 120 %) to the main circuit of ACB by use of a high power testing facility when performing the trip test of SEQ. I?

Rationale:

It is not so easy to conduct the instantaneous trip test using the high currents mentioned above, because to do so a high power testing facility is required. In addition ACBs often have several ratings, which are determined by the specification of the CT in combination with the trip unit, and the trip unit is usually the same for all models.

So some accredited testing laboratories have performed this test by applying the secondary current of CT (normally 5 A) to the input of an overcurrent release. This release is connected to operating mechanism of contacts to check the mechanical opening of an ACB. But by use of this method, we bypass possible problems such as CT saturation, thermal and EMC influence on ACB, especially on single-pole connection.

Decision:

The secondary current of the CT (reduced current, 5 A, for example) may be used for trip tests of ACBs integrated with electronic OCR for all ratings of I_n, but only for sub-clause 8.3.3.1.2 of SEQ I.

But in addition, followings items shall be verified to fully cover the safety aspects of the standard:

1. The conformity of the performance (at least turn ratio and composite error) of the CT or Rogowski coil, if any, shall be verified by specifications, test reports or certificates. All CTs of the circuit-breakers of the given frame size have to show the same performance characteristic.
2. The single pole short-circuit test with a current equal to 80 % of the maximum current setting of the instantaneous release and equal to 120 % of the maximum current setting of the instantaneous release shall be performed at any convenient voltage with the current in the main poles of the circuit-breaker. The other tests required by the standard may be conducted by use of a simulated input signal to the tripping unit.

CTL 决议

标准： IEC 60947-2（2006-04，4^{th} Ed.）	条款号： 8.3.3.1.2	决议单号： DSH 659
主题： 大额定电流的空气断路器在瞬时脱扣试验中电流设置问题	关键词： 脱扣极限和特性	2008 年第 45 次 CTL 全体会议批准

问题：

根据 8.3.3.1.2，当作为断路器内部部件时，则过电流断开脱口器通常应装入相应的断路器中进行验证。

例如，如果一个空气断路器额定电流为 6300A 且瞬时脱扣整定电流达 $16I_n$，那么在进行程序Ⅰ的脱扣试验时，我们是否必须要通过大功率试验装置对空气断路器的主电路施加 80640A（$16I_n$×80%）和 120960A（$16I_n$×120%）的电流？

基本原因：

用上述的大电流进行瞬时脱扣试验并不容易，因为这样做需要一个大功率的试验装置。另外，空气断路器常有几个额定电流值，这是由与脱扣单元组合的电流互感器的规格决定的，而且所有规格断路器的脱扣单元通常是相同的。

因此一些得到认可的实验室对过电流脱扣器的输入端施加电流互感器的次级电流（通常是 5A），这个脱扣器与触头的操作机构相连接以检查空气断路器的机械断开。但是应用这种方法，我们忽略了可能存在的问题，诸如电流互感器饱和、发热和对空气断路器的 EMC 影响，特别是单极连接。

决议：

对带有电子过电流脱扣器的所有额定 In 值的空气断路器，提议在脱扣试验中应用互感器的一次电流（折算电流，例如 5A），但只针对程序Ⅰ中的 8.3.3.1.2 条款。

但这种情况下，以下的项目还需要另外验证，以完全覆盖标准中涉及到的安全方面。

1. 电流互感器或罗柯夫斯基线圈性能（至少匝数比和合成误差）要满足一致性，如果有的话，应该用使用说明书、测试报告或证书来核实。给定壳架等级的断路器的所有电流互感器应该表现相同的工作特性。

2. 电流等于瞬时脱扣器的最大电流整定值的 80%和 120%的单极短路试验，可以在任何合适的电压下对断路器的主电路通以电流来进行。标准要求的其他试验可给脱扣单元通以模拟输入信号来进行。

CTL DECISION SHEET

Standard(s)- IEC 61009-1:2006-06,Ed. 2.2	Subclause(s): 9.9.2.3	No.	Year
		DSH 0731	2009
Category: POW,PROT		Developed by: CTL-ETF7	
Subject: Ambient temperature on tripping tests	Key words: Ambient temperature Tripping characteristic	Decision approved at the 2009 CTL Plenary Meeting	

Question:

In item a) of clause 9.9.2.3, is it correct to perform tripping tests in an ambient temperature of 35 ℃ ± 2 ℃ above the ambient air reference temperature?

Decision:

No, the word "above" shall be replaced by "below" in the sentences of item a) of clause 9.9.2.3 to perform tripping tests in -5 ℃.

Explanatory Notes:

This is already covered by 23E/658A/CDV.

In clause 5.2.2, it is stated that "The standard reference ambient air temperature is 30 ℃" and Table 4 states that "The standard range of application is -5 ℃ to +40 °C".

CTL 决议

<table>
<tr><td>标准：
IEC 61009-1：2006-06，2.2 版</td><td rowspan="2">条款号：
9.9.2.3</td><td>决议单号</td><td>年份</td></tr>
<tr><td></td><td>DSH 0731</td><td>2009</td></tr>
<tr><td>类别：POW，PROT</td><td></td><td colspan="2">制定者：CTL-ETF7</td></tr>
<tr><td>主题：
脱扣试验的环境温度</td><td>关键词：
环境温度
脱扣特性</td><td colspan="2">2009 年 CTL 全体会议上通过</td></tr>
</table>

问题：

在条款 9.9.2.3 a）中，执行脱扣试验时的环境温度应为高于周围空气的基准温度 35℃ ± 2℃，是否正确？

决议：

不正确，在条款 9.9.2.3 a）中的“高于”应改为“低于”，即脱扣试验在-5℃温度条件下进行。

说明：

23E/658A/CDV 文件中已阐述这些内容。

在条款 5.2.2 中指出：“标准周围空气基准温度为 30℃”，且表 4 指出：“该标准的适用范围为－5℃～＋40℃”。

CTL DECISION SHEET

Standard(s)- IEC 61009-1:2006-06,Ed. 2.2	Subclause(s): 9.12.12.1	No. DSH 0732	Year 2009
Categories: POW, PROT		**Developed by:** CTL-ETF7	
Subject: **Limits of tripping in 1.1 times the conventional tripping current after the tests of 9.12.11.3 of 9.12.11.4b)**	**Key words:** **Limits of tripping**	**Decision approved at the 2009 CTL Plenary Meeting**	

Question:

After the tests of clause 9.12.11.3 or 9.12.11.4 item b), the tests of non-tripping and tripping tests shall be performed according to 9.12.12.1. If the current is steadily increased within 5 s to 1.1 times the conventional tripping current at the end of this verification, should all the RCBOs trip within 1 h?

Decision:

No, the sentence of “The RCBOs shall trip within 1 h” in 9.12.12.1 shall be replaced by “The RCBOs shall trip within the conventional time”.

Explanatory Notes:

This is already covered by 23E/658A/CDV.

According to table 8, the limits of tripping or non-tripping time (i.e. conventional time) depend on the rated current of RCBO.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 61009-1：2006-06，2.2 版</td><td rowspan="3">条款号：
9.12.12.1</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0732</td><td>2009</td></tr>
<tr><td>类别：POW，PROT</td><td colspan="2">制定者：CTL-ETF7</td></tr>
<tr><td>主题：
在按条款 9.12.11.3 或 9.12.11.4 b)的试验后，1.1 倍的约定脱扣电流的极限</td><td>关键词：
脱扣极限</td><td colspan="2">2009 CTL 全体会议上通过</td></tr>
<tr><td colspan="4">问题：
在按条款 9.12.11.3 或 9.12.11.4 b）试验后，不脱扣和脱扣试验应按条款 9.12.12.1 进行。在本试验结束时，如果电流在 5s 内稳定地增加到 1.1 倍的约定脱扣电流，漏电断路器是否应该在 1 小时内脱扣？

决议：
不是，条款 9.12.12.1 中的“漏电断路器应在 1 小时内脱扣”应改为“漏电断路器应在约定时间内脱扣”。

说明：
23E/658A/CDV 文件中已阐述这些内容。
根据表 8，脱扣时间或不脱扣时间（即约定时间）的极限取决于漏电断路器的额定电流。</td></tr>
</table>

11. VARIOUS 其他

CTL DECISION SHEET

Standard(s): **IEC 60065** **IEC 60335** **IEC 60950** **IEC 61010** **+ any other as applicable**	**Subclause(s):** **9.1.6** **22.5** **2.1.1.7** **6.1.2,6.10.3** …	**No.** **DSH-0716**	**Year** **2008**
Category: **HOUS,MEAS, OFF, TRON, Various...**		**Developed by:**	**WG2** **WG4**
Subject: **Probe impedance for plug discharge test**	**Key words:** - **Probe impedance** - **Plug discharge** - **>= 100 MΩ** - **25 pF or less**	**Decision approved at the 2009 CTL Plenary Meeting**	

Question:

When the plug discharge test is performed using a voltage probe and oscilloscope for direct measurement of the voltage decay, what probe impedance shall be used to ensure uniform and comparable results?

Note: IEC 60950-1/2005 specifies 100 MΩ ± 5 M Ω in parallel with an input capacitance of 20pF ± 5 pF.

Decision:

If the relevant standard does not contain contradictory requirements, a voltage probe having an input impedance of 100 MΩ or greater in parallel with an input capacitance of 25 pF or less, shall be used for this test.

For other (automatic) equipment with special measurement techniques equivalent measures shall be taken to ensure comparable results.

Explanatory Notes:

This issue was raised at the 2008 CTL meeting after discussing the proficiency testing program on plug discharge 2007/2008. Participants used several different probe impedances, which caused inconsistent results.

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60065
IEC 60335
IEC 60950
IEC 61010
及任何适用的标准</td><td rowspan="3">条款号：
9.1.6
22.5
2.1.1.7
6.1.2，6.10.3
…</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0716</td><td>2008</td></tr>
<tr><td>类别：
HOUS，MEAS，OFF，TRON，Various…</td><td colspan="2">制定者：
WG2，WG4</td></tr>
<tr><td>主题：
插头放电试验的探头阻抗</td><td>关键词：
— 探头阻抗
— 插头放电
— ≥100MΩ
— 25pF 或更低</td><td colspan="2">2009 年 CTL 年会获得批准</td></tr>
<tr><td colspan="4">问题：
当插头放电试验是使用电压探头和示波器直接测量电压衰减时，应选择多大的探头阻抗来保证结果的一致性和可比性？
注：IEC 60950-1/2005 中规定为 100MΩ±5MΩ 电阻和一个输入电容量为 20pF± 5pF 的电容并联。

决议：
如果相关标准未包含与此相矛盾的要求，试验应使用一个输入阻抗为 100 MΩ 或更高，且并联输入电容量为 25pF 或更低的电压探头。
对于其他附带特殊测量技术的自动设备，应采取等同的测量方式以保证结果的可比性。
说明：
在对 2007/2008 年插头放电比对试验进行讨论后，这个问题于 2008 年 CTL 会议上被提出。参与者使用了几个不同的探头阻抗，得出了不一致的结果。</td></tr>
</table>

CTL DECISION SHEET

Standard(s): IEC 60065/2001 A1/2005 IEC 60950-1/2005 IEC 60601-1/2005 IEC 61010-1/2001 IEC 60335-1/2001+ A1/2004+A2/2006	Sub clause(s):Various	Sheet N°: 624/07 CTL-WG4 Page: 1(1)
Subject(s): Humidity test requirements	Key words: - 93% RH - +/-3% RH tolerance - 20-30 °C	Meeting: Decision confirmed at 45th CTL meeting

Question: Various IEC standards have requirements for humidity/temperature conditioning, but have different specifications for the test conditions.

IEC 60065 – 93 +2%/– 3% (t 30°C +0/ – 2°C)
IEC 60950-1 – 91%~95% (t 20~30°C +/–1°C)
IEC 60601-1 – 93 (t 20~30°C)
IEC 61010-1 – 92,5 + 2,5%/–2,5% (t 40°C +/–2°C)
IEC 60335 –93 + 3%/–3% (t 20~ 30°C +/–1°C)

There does not seem to be a technical justification for the differences in the specifications.
Accordingly, it is suggested and recommended that the humidity/temperature specifications in the above standards be consistent.

Decision: The chamber is to be set at 93% RH, with +/–3% RH tolerance, at a convenient temperature between 20°C and 30°C, but the chosen temperature to be kept within +/–2°C during the test.
The standard specifications for the humidity are to be met at the reference/measuring point, where the controlling humidity sensor is located.
The tolerances permitted in CTL DSH 251A (+/–6% RH) are allowed in other parts of the humidity chamber, away from the reference point.

Explanatory notes: --

CTL 决议

<table>
<tr><td>标准：
IEC 60065/2001＋ A1/2005
IEC 60950-1/2005
IEC 60601-1/2005
IEC 61010-1/2001
IEC 60335-1/2001＋
A1/2004＋A2/2006</td><td>条款号：
IEC 标准的不同条款</td><td>决议单号：
624/07
CTL-WG4</td></tr>
<tr><td>主题：
湿热试验要求</td><td>关键词：
— 93％RH
— ＋3/－3％RH 容差
— 20～30℃</td><td>CTL 第 45 届会议确定的决议</td></tr>
</table>

问题：

不同的 IEC 标准对湿度/温度条件均有要求，但对试验条件却有不同的规定值。

IEC 60065－93 ＋2％/－3％（t 30℃＋0/－2℃）

IEC 60950-1－91％～95％（t 20～30℃＋/－1℃）

IEC 60601-1－93（t 20～30℃）

IEC 61010-1－92.5 ＋2.5％/－2.5％（t 40℃＋/－2℃）

IEC 60335－93＋3％/－3％（t 20～30℃＋/－1℃）

这些不同的规定值看上去并没有技术上的理由。

因此，建议和推荐能在上述标准中协调一致的湿度/温度规定值。

决议：

潮态箱要调节到湿度为 93％RH±3％RH，温度为 20～30℃之间的任意值，但在试验期间要保持在±2℃的范围内。

在放置湿度控制传感器的基准/测量点处的湿度要满足标准中的规定。在潮态箱中离开基准点的其他部位，允许存在 CTL DSH 251A 所允许的容差（±6％RH）。

说明：

无

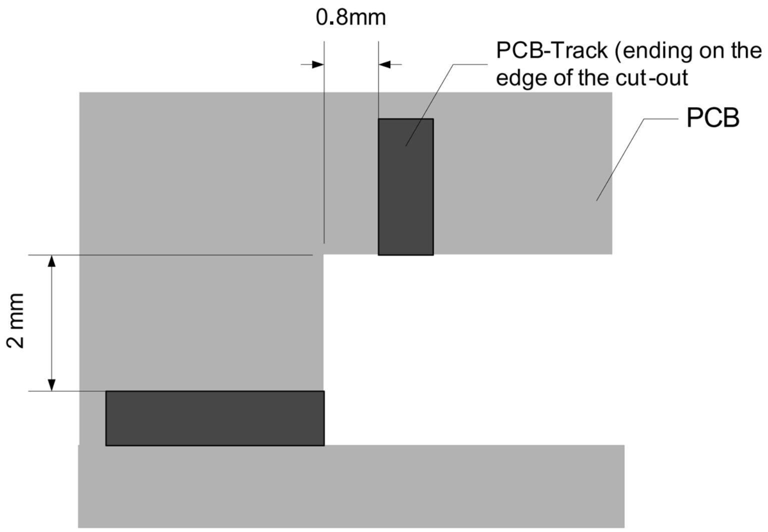
CTL DECISION SHEET

Standard(s): IEC 60664-1/2002 ed1.2 IEC 60664-1/2007 ed2.0 All equipment standards based on these	Subclause(s): 4.2 6.2	No. DSH 0717	Year 2008
Categories: Various, General		Developed by: WG2 - WG4	
Subject: Creepage and clearance determination, groove, recess, corner, bridging of distance X	Key words: - Creepage - Clearance - Groove - Recess - Corner - Bridging of distance X	Decision approved at the 2009 CTL Plenary Meeting	

Questions:

1) How shall the examples given in IEC 60664 be interpreted for intermediate situations?

2) How shall the example given below be judged correctly, based on the examples given in IEC 60664-1 and based on the assumption that X = 1 mm?



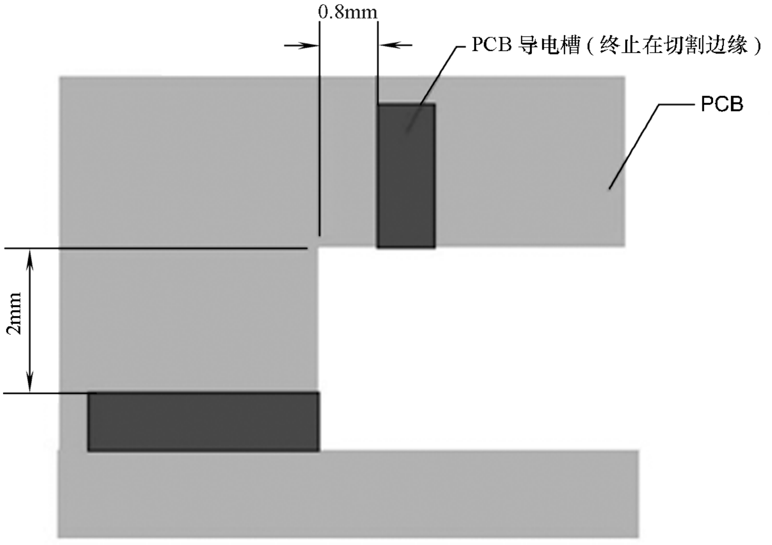
3) When shall the sentence:
"If the associated clearance is less than 3 mm, the minimum dimension X may be reduced to one third of this clearance." be applied?
Does this sentence refer to the actual clearance measured or to the minimum clearance required?

CTL 决议

<table>
<tr><td rowspan="2">标准：
IEC 60664-1/2002 ed1.2
IEC 60664-1/2007 ed2.0
所有基于这些标准的器具标准</td><td rowspan="3">条款号：
4.2
6.2</td><td>决议单号</td><td>年份</td></tr>
<tr><td>DSH 0717</td><td>2008</td></tr>
<tr><td>类别：其他，通用</td><td colspan="2">制定者：WG2 - WG4</td></tr>
<tr><td>主题：
爬电距离和电气间隙的确定，沟槽、凹陷、拐角、距离 X 的跨接</td><td>关键词：
— 爬电距离
— 电气间隙
— 沟槽
— 凹陷
— 拐角
— 距离 X 的跨接</td><td colspan="2">2009 年 CTL 全体会议批准</td></tr>
</table>

问题：

1. 对于中间情况，如何理解 IEC 60664 给出的例子？
2. 在 IEC 60664-1 给出例子的基础上，假定 X＝1mm，以下例子应如何正确判定？



3. “若相关电气间隙值小于 3mm，X 的最小尺寸应减小到该电气间隙的 1/3。”这句话在什么情况下适用？

这句话指的是实际测得的电气间隙还是最小电气间隙规定值？

Decisions:

Ad 1)
An intermediate situation not covered directly by the Standard shall be determined by considering it as an extension of the most appropriate example from the Standard. An example of the methodology is given in the Explanatory Notes to Question 2."

Ad 2)
The example shall be judged without any bridging of the corner in the cut-out creepage = 2,8 mm, no shortcut applicable.

Ad 3)
The sentence shall always be applied whenever the required clearance is less than 3 mm and the allowed reduction of the minimum dimension X shall be referred to 1/3 of the required minimum clearance.

Explanatory Notes:

Extract from the standard:

6.2 Measurement of creepage distances and clearances

The dimension *X*, specified in the following examples, has a minimum value depending on the pollution degree as follows:

Pollution degree	Dimension *X* minimum value
1	0,25 mm
2	1,0 mm
3	1,5 mm

If the associated clearance is less than 3 mm, the minimum dimension *X* may be reduced to one-third of this clearance.

The methods of measuring creepage distances and clearances are indicated in the following Examples 1 to 11. These cases do not differentiate between gaps and grooves or between types of insulation.

The following assumptions are made:

- any recess is assumed to be bridged with an insulating link having a length equal to the specified width X and being placed in the most unfavourable position (see Example 3);
- where the distance across a groove is equal to or larger than the specified width X, the creepage distance is measured along the contours of the groove (see Example 2);
- creepage distances and clearances measured between parts which can assume different positions in relation to each other, are measured when these parts are in their most unfavourable position.

决议：

Ad 1）

对于标准中没有直接包括的中间情况，应考虑为标准中与之最适合的例子的一种扩展。应用这种方法的例子在问题 2 的注释中给出。

Ad 2）

判断这个例子时，不进行切割处拐角的跨接。即爬电距离为 2.8mm，短接不适用。

Ad 3）

无论何时，只要电气间隙的规定值小于 3mm，这句话总是适用的，并且 X 的最小尺寸允许减小到最小电气间隙规定值的 1/3。

说明：

标准中的摘录：

6.2　爬电距离和电气间隙的测量

对以下例子中表述的 X 的尺寸，其最小值由污染等级决定，如下所述：

污染等级	X 的最小值
1	0，25mm
2	1，0mm
3	1，5mm

若相关电气间隙值小于 3mm，X 尺寸的最小值可以降低到此间隙的 1/3。

测量爬电距离和电气间隙的方法在例 1～例 11 中说明。这些案例既不区分凹口与沟槽，也不区分绝缘类型。

进行以下假设：

— 假设任何凹陷都通过一个长度与给定 X 的宽度相等的绝缘连接线进行桥接，并且被放置在最不利的位置（见例 3）；
— 若槽口宽度不小于给定 X 的宽度，爬电距离的测量沿着沟槽轮廓进行（见例 2）；
— 如果两零部件之间有多种相对位置，爬电距离和电气间隙的测量在这些零部件处于最不利位置时进行。

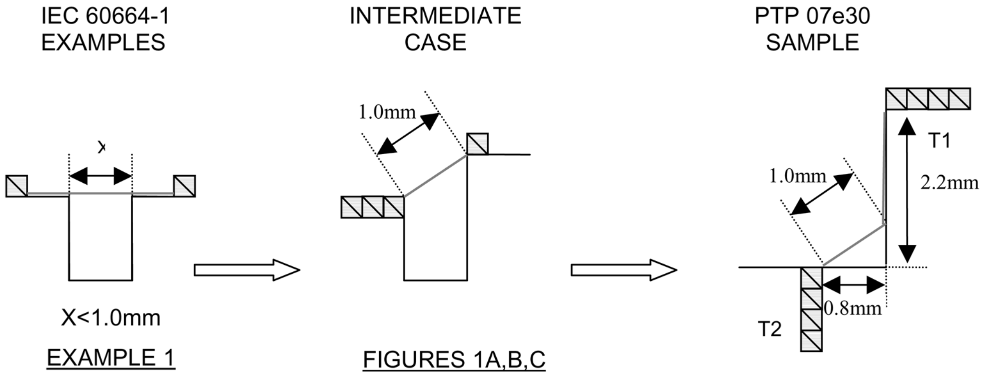
Ad 1) and 2)

Various understandings provided by participants are presented here, but only example 3 is considered as the correct and most appropriate application.

——— CREAPAGE PATH
ALL CASES DEPICTED FOR PD2

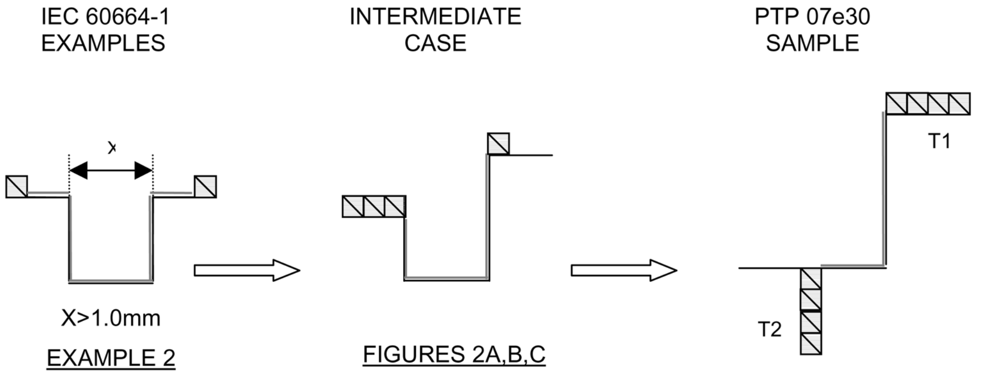
Sample as an Extension of Example 1

The sample could be considered as an extension of Example 1, with the conductors moved to the edges of the rectangular groove and with one side of the groove reduced to zero depth (figure 1). In this interpretation the groove would be bridged by a link x = 1.0mm (for PD2) at an angle determined by the geometry of the groove.



Sample as an Extension of Example 2

Alternatively, the sample could be considered as an extension of Example 2, with one side of the rectangular groove reduced to zero, and the measurement of x between the shoulders of the groove (figure 2C). Since the groove angle is 90 degrees the corner is not bridged.



Ad 1）和 2）

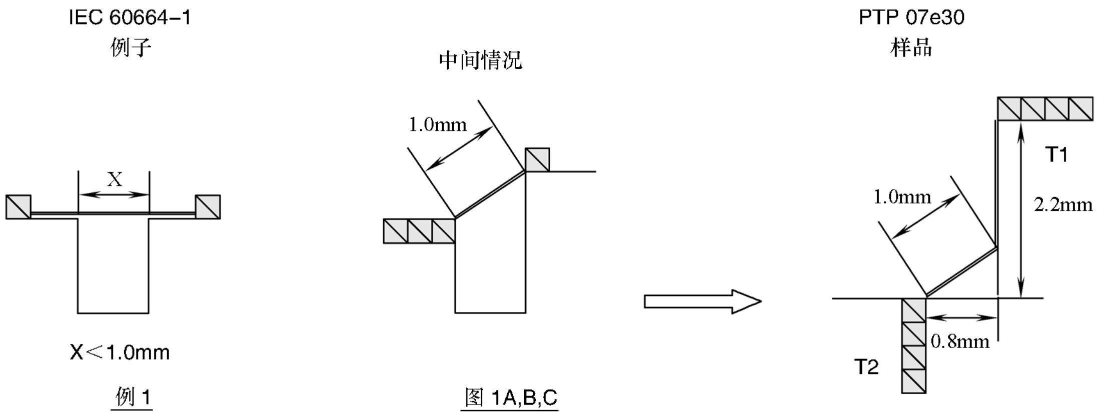
与会者提供的不同理解在这里列举出来，但只有例 3 被认为是正确的，并且是最恰当的应用。

—— 爬电路径

基于污染等级 2 的所有情况描述

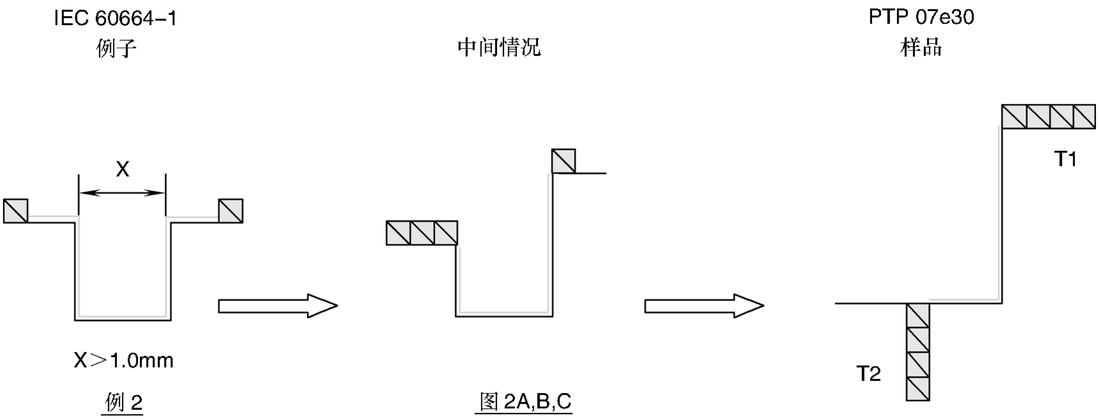
作为例 1 的扩展

这个样品可被认为是例 1 的扩展。导体移动至直角沟槽的边缘并且沟槽一边的深度减小到零（图 1）。在这种解释中，沟槽被 x=1.0mm（基于污染等级 2）的连接线跨接，跨接角度由沟槽的几何尺寸决定。



作为例 2 的扩展

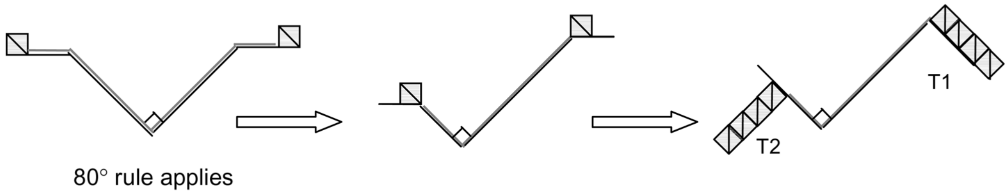
作为选择，这个样品可被认为是例 2 的扩展。沟槽一边减小到零，X 的测量在沟槽的边沿之间进行（图 2C）。由于沟槽角度为 90°，拐角处不跨接。



Sample as an Extension of Example 3

However, the sample could also be considered as an extension of Example 3, with one of the conductors moved down one side to be close to the bottom of the groove (figure 3C).
Since the groove angle is 90 degrees the corner is not bridged.

IEC 60664-1 EXAMPLES | INTERMEDIATE CASE | PTP 07e30 SAMPLE

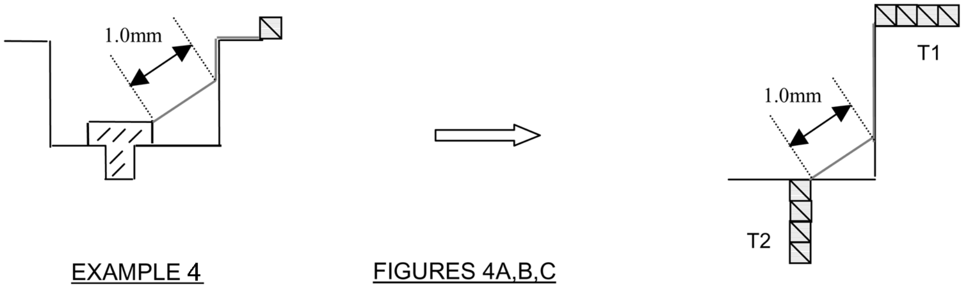


EXAMPLE 3 | FIGURES 3A,B,C

Sample as an Extension of Example 4

An argument has been put forward that the rule depicted in Example 4 should apply, since the sample could be considered as similar to that situation with one of the conductors (say T2) taking the place of the screw head and flush with the 'bottom' face of the groove (figure 4C). Applying this rule the corner would be bridged by a link = 1.0mm for PD2, at an angle determined by the geometry.

IEC 60664-1 EXAMPLES | INTERMEDIATE CASE | PTP 07e30 SAMPLE



EXAMPLE 4 | FIGURES 4A,B,C

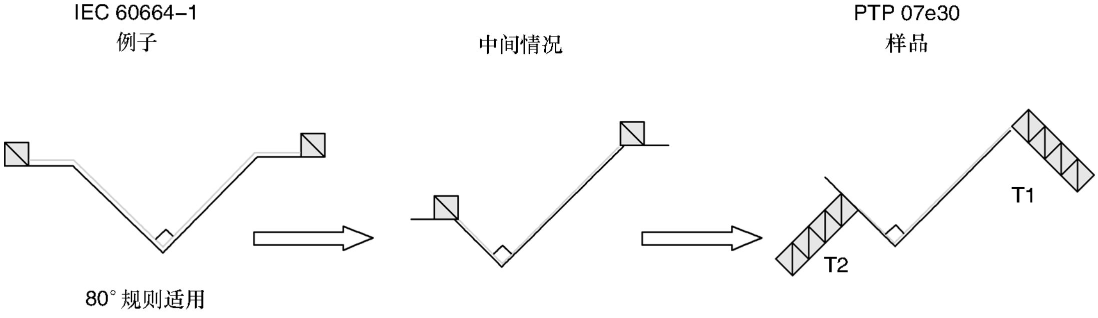
Discussion

The determination of the most reasonable interpretation of the rules for this case depends on what the Standards makers had in mind when creating the rule for bridging a groove. The only guidance given in the Standard (clause 6.2) is:
"The following assumptions are made:

- Any **recess** is assumed to be bridged with an insulating link having a length equal to the specified width x and being placed in the most unfavourable position."

作为例 3 的扩展

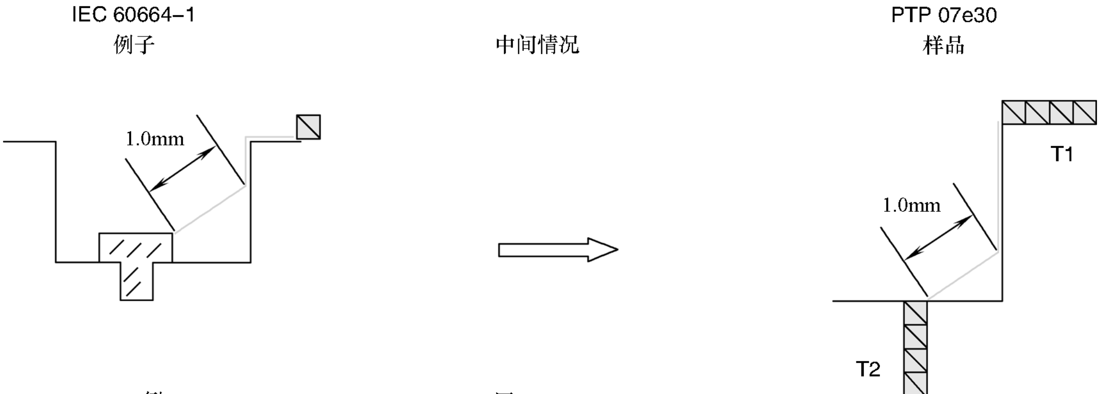
然而，该样品也可被认为是例 3 的扩展。一个导体移动至靠近沟槽底部的一边（图 3c），因为沟槽角度为 90°，拐角处不跨接。



例 3　　图 3A,B,C

作为例 4 的扩展

有一个争论被提出，认为例 4 中描述的规则应该适用，因为这个扩展可被认为是相似的情形。用一个导体（如 T2 所示）代替螺钉头部并与沟槽的底面平齐（图 4C）。应用此规则，拐角处将被基于污染等级 2 的 1mm 连接线跨接，跨接角度由几何尺寸决定。



例 4　　图 4A,B,C

讨　论

在这个案例中，决定哪个解释最合理取决于标准制定者在制订沟槽跨接规则时的想法。标准中（条款 6.2）给出的唯一指导是：

进行以下假设：

—假设任何凹陷都通过一个长度与特定 X 的宽度相等的绝缘连接线进行桥接，并且被放置在最不利的位置。

The assumption that is commonly made is that a **recess**, however defined, could attract dust etc and so create a surface for the creepage path.

If the Standards writers had intended **every** gap of 1.0mm created by a change of direction of the surface to be bridged they would not have drawn Examples 1, 2, 4, 6, 7, and 9 the way they did. Therefore it must be concluded that there is a point at which the change in surface direction is no longer regarded as a recess.

Examples 1, 2, 6, 7, and 9 all show 90 degree groove angles which are not treated as recesses. Example 4 shows angles of around 110 degrees which are not treated as recesses.

The CTL Decision 590 effectively defines the boundary (an angle of 80 degrees) when a change of surface direction creates a recess.

The judgment of whether Example 10 can be applied depends on whether a recess is deemed to exist. In example 10 of the Standard, the screw head which is proud of the insulating surface creates a recess. However, in the extension of the example to the sample situation given in the explanatory notes, a recess no longer exists, and all that remains is a right-angled groove. Therefore Example 10 is not an appropriate model for the sample situation given in the explanatory notes.

Of the three remaining models, Example 2 leads to the bridging of a corner where no recess exists. Both Example 2 and Example 3 lead to following the edges of the groove, but the one which most simply corresponds to the example of Question 2 is the V-shaped groove (Example 3) together with CTL decision 590 (80 degree rule).

Ad 3)

1. The practical application of the C/3 reduction when applied for required clearances less than 3mm leads for a great majority of products marketed (rated voltage less than 300 V) to the case that the exception becomes the rule.

2. The C/3 criteria makes no distinction between pollution degrees which leads, for example, to the case that for pollution degree 1 the result is not to increase the measured creepage distance but to reduce it (while for pollution degree 2 or 3 the application leads to an increase of the measured creepage distance).

3. Another point difficult to understand is the relation with other requirement of the standard IEC 60664: Table 2 indicates in note (3) that for all the lower impulse voltages of the standard the minimum clearance required for pollution degree 2 and 3 are limited not by the overvoltage value but this is limited by the “reduced capacity of the associated creepage distance to support voltage in humid conditions”. This limit is 0,2 mm for PD 2 and 0,8 mm for PD 3.

4. If associated clearance is identified with required clearance, for a typical 230 V equipment with overvoltage category II, the required clearance is 1,5 mm for all pollution degrees. The C/3 value is then 0,5 mm. Comparing this with the data of the previous paragraph, we see that for pollution degree II this could be consistent (0,5mm > absolute minimum of 0,2mm), but for Pollution Degree 3, 0,5mm is less than the 0,8mm absolute minimum required.

5. If it is accepted that a clearance shorter than 0,8 mm could be bridged in a PD 3 environment, then it is not logical to accept that a 0,5 mm clearance can break a creepage trajectory.

通常进行的假定是：一个凹陷（无论如何定义）能够招致灰尘等物体，并因此为爬电路径创造了一个平面。

如果标准起草者试图将由于表面方向改变所产生的每个 1.0mm 沟槽都进行跨接，他们就不会画出例 1、2、4、6、7 和例 9。因此可以得出结论，某个程度的表面方向的改变不再被认为是凹陷。

例 1、2、6、7 和例 9 都显示了未被当作凹陷的 90°角沟槽，例 4 显示了未被当作凹陷的约 110°的角。

CTL 决议 590 有效地定义了当改变表面方向后产生一个凹陷时的边界（一个 80°角）。

判断例 10 是否适用取决于是否认为凹陷存在。标准的例 10 中，螺钉头部突出绝缘表面并形成了一个凹陷。然而，在注释中给出的扩展例的情形中不存在凹陷，只有一个 90°的拐角。因此对于注释中给出的那种情形，例 10 并不是一个合适的模型。

在其余 3 个模型中，例 1 跨接了没有凹陷存在的拐角。例 2 和例 3 都是沿着沟槽的边沿，但 V 形沟槽（例 3）和 CTL 决议 590（80°角规则）与问题 2 中的例子最为符合。

Ad 3）

1. 当电气间隙的规定值小于 3mm 时，对“减至 1/3 电气间隙”的实际应用使得大多数上市产品（额定电压小于 300V）面临这样的情况，即例外情况成为了规则。

2. “减至 1/3 电气间隙”规则对于不同的污染等级没有区别，这就导致了：举例来说，对于污染等级 1，其结果并不是增加，而是减小了实测爬电距离（然而对污染等级 2 或 3，这个规则的应用使得实测爬电距离增加）。

3. 另一个理解难点在于该规则与 IEC 60664 标准中的其他要求之间的联系：表 2 的注 3 中表明，对于标准中所有较低的脉冲电压，基于污染等级 2 或 3 的最小电气间隙不是由过电压值限制，而是由“在潮湿条件下总爬电距离降低的承受电压能力”来限制的。对于污染等级 2，限值为 0.2mm。对于污染等级 3，限值为 0.8mm。

4. 如果将总电气间隙视为电气间隙的规定值，那么对于一个典型的、过电压类别 II 的 230V 器具，电气间隙的规定值对于所有污染等级均为 1.5mm。1/3 电气间隙值则为 0.5mm。将其与之前段落中的值比较，可以看到对于污染等级 2，这是一致的（0.5mm 大于绝对最小值 0.2mm）。但对于污染等级 3，0.5mm 小于绝对最小规定值 0.8mm。

5. 如果小于 0.8mm 的间隙在污染等级 3 的环境下进行跨接是被接受的，那么逻辑上无法接受 0.5mm 的间隙破坏一条爬电路径。

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